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CAREERS IN THE U. S. DEPARTMENT OF AGRICULTURE

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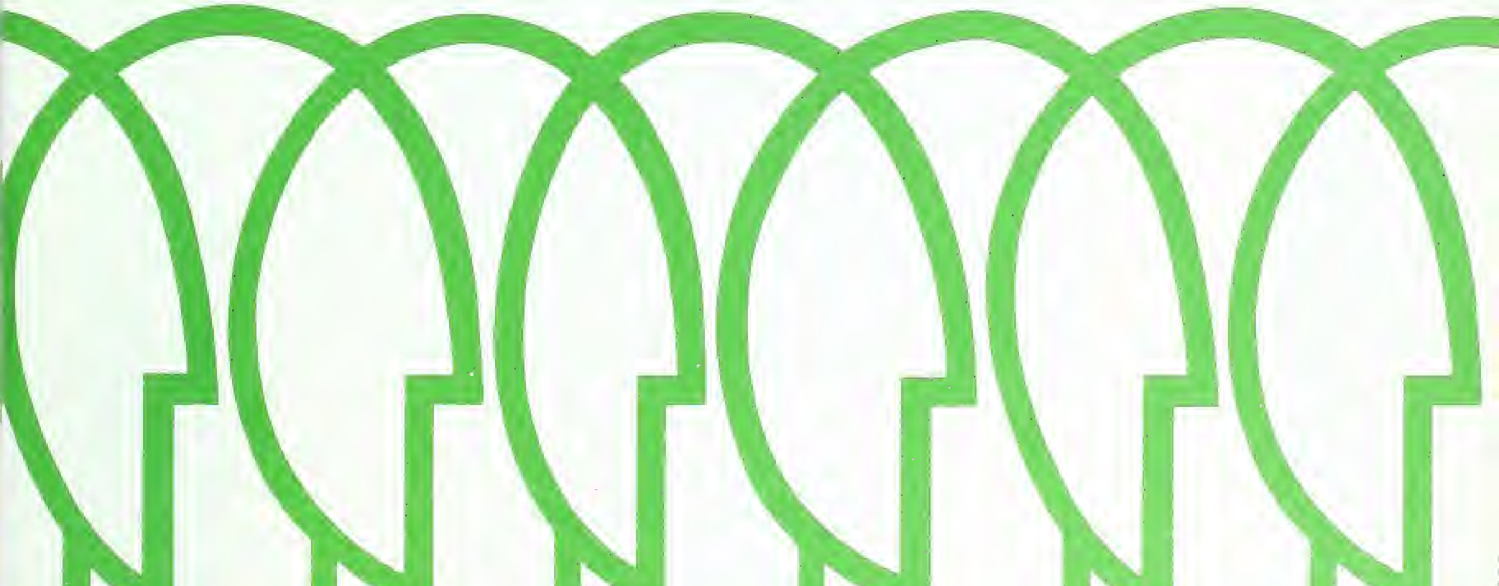
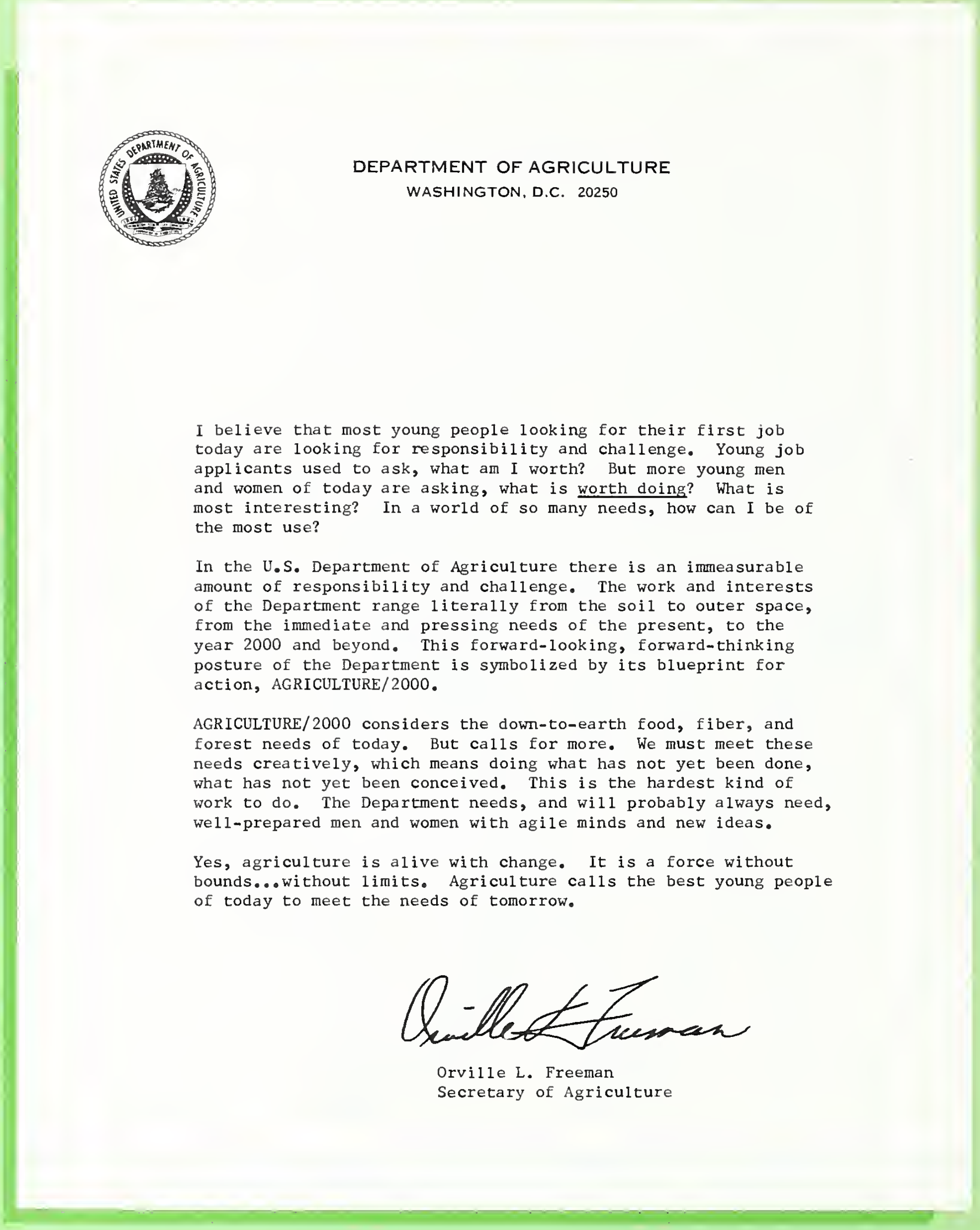
PROFILES

CAREERS IN THE U. S. DEPARTMENT OF AGRICULTURE





DEPARTMENT OF AGRICULTURE
WASHINGTON, D.C. 20250

I believe that most young people looking for their first job today are looking for responsibility and challenge. Young job applicants used to ask, what am I worth? But more young men and women of today are asking, what is worth doing? What is most interesting? In a world of so many needs, how can I be of the most use?

In the U.S. Department of Agriculture there is an immeasurable amount of responsibility and challenge. The work and interests of the Department range literally from the soil to outer space, from the immediate and pressing needs of the present, to the year 2000 and beyond. This forward-looking, forward-thinking posture of the Department is symbolized by its blueprint for action, AGRICULTURE/2000.

AGRICULTURE/2000 considers the down-to-earth food, fiber, and forest needs of today. But calls for more. We must meet these needs creatively, which means doing what has not yet been done, what has not yet been conceived. This is the hardest kind of work to do. The Department needs, and will probably always need, well-prepared men and women with agile minds and new ideas.

Yes, agriculture is alive with change. It is a force without bounds...without limits. Agriculture calls the best young people of today to meet the needs of tomorrow.

Orville L Freeman

Orville L. Freeman
Secretary of Agriculture

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PROFILES OF THE FEDERAL CAREER SERVICE

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PROFILES OF THE FEDERAL CAREER SERVICE

The 20th century has proved to be an exciting time in which to live. Man has mass-produced the automobile, invented the airplane, harnessed the atom, fought two World Wars, and is now engaged in the conquest of space. Nowhere have the accomplishments and the problems of this century had a greater impact than on Government.

The Government's role in the events that have shaped today's world has been one of active participation. As a result, many civil service employees are in the vanguard of those responsible for significant achievements and contributions to our society. This is borne out by the fact that scientists working for the Federal Government contributed to 7 of the 10 most recent important scientific achievements: (1) hydrogen fusion; (2) power from nuclear fission; (3) electronic computers; (4) commercial jet aviation; (5) solid state electronics; (6) economical conversion of salt water to fresh water, and (7) the penetration of space.

In ever increasing numbers, college graduates look to the Federal service for careers. There they are finding opportunities and rewards found in few other callings. Many choose careers in the Government because of the excitement inherent in the far-reaching activities of the Government. Others receive great satisfaction from the opportunity of serving all the American people. Still others seek Government careers because of the opportunities for initiative and creative research.

Government has become so important and offers such varied opportunities that it merits serious consideration by those interested in challenging, responsible, and rewarding careers.

Role of U.S. Department of Agriculture

For over 100 years, the U.S. Department of Agriculture has protected, served, and represented the public interest. Engaging in more activities which are of benefit or service to the farmer and to the consumer than any other department or agency of the Federal Government, the U.S. Department of Agriculture has contributed greatly to one of the world's most important accomplishments—the conquest of famine.

The Department has played a vital and continuous role in the economic growth of America, creating a technological revolution in agriculture. However, while the Department's history of accomplishments gives cause for pride, there are still problems of vital concern. Some of these are underconsumption, overproduction, conservation and use of resources, and the need for greater opportunities for rural people in nonfarm occupations.

In one way or another, the work of the Department of Agriculture touches every American every day.

Employees of the Department:

- Help to conserve forests, water, and soil resources, to revitalize land that is unproductive, and to eliminate rural poverty.
- Inspect meat and poultry, eradicate pests, and protect the National Forests.
- Operate the largest food-service industry in the United States—The National School Lunch Program.
- Conduct research in such areas as crops, automation, pests, food, the biological sciences, and natural resources.
- Represent the United States in international

meetings and participate in the U.S. program of helping developing nations grow more food.

- Insure crops against drought, flood, insects, and hail, and provide loans for the development of rural America.

These and hundreds of other services have a far-reaching effect on the health, welfare, economy, and security of the Nation.

The Department's 100,000 employees have opportunities for community service, self-development, and scientific contributions. They work in hundreds of offices, laboratories, and installations throughout the United States, in its territories, and in many foreign countries. They perform almost every kind of work done in private employment, as well as many jobs unique to Government.

The U.S. Department of Agriculture operates a long-range recruiting program directed toward the primary source of the Nation's capable, well-trained young people—the Nation's colleges and universities. It is not recruiting just for today's needs, but for the future as well. The young men and women who measure up to the high standards required and who can grow and develop on the job may aspire to the highest career assignments in the years ahead. They will be the career managers, the skilled technicians, and the professional leaders of tomorrow.

How Jobs Are Filled

The Department of Agriculture is seeking the best qualified person for each position, regardless of race, creed, color, sex, politics, or national origin. Appointments to civil service jobs are made on the basis of ability to do the job—ability demonstrated by education, experience, and competitive examinations.

The civil service qualification requirements insure that public jobs are filled only by those who have the needed skill, necessary training, or experience to do the work. In addition, they provide the opportunity for all qualified applicants to compete for a job on an equal basis. This two-fold goal is the cornerstone of the Federal merit system.

Civil service positions are filled from lists containing names of people who have passed competitive examinations for jobs in a particular field. Competitive examinations are announced and conducted by the Civil Service Commission, the central recruiting agency for the executive branch of the Government.

The first step in obtaining a job with the Department of Agriculture rests with the applicant. He must express an interest in working for the Government and apply for the examination for the position in which he is interested. Information about examinations and instructions on how to apply for an examination may be obtained from employment offices of agencies of the Department of Agriculture, the Civil Service Commission regional offices, or post offices. Many college placement offices maintain copies of examination announcements for the information of students.

Some examinations include written tests. These are given to applicants in a group at an appointed time and place. When a written test is given, applicants are sent notices of when and where to report.

Positions not Requiring Written Tests

Many positions in the U.S. Department of Agriculture are filled through examinations that do not require a written test. The applicant is rated on the education, training, and experience he lists on the standard application forms. Examples of positions filled without written tests are: accountants, chemists, engineers, foresters, physicists, veterinarians, and many other professional fields. Examinations for such positions are often administered by an Interagency Board of U.S. Civil Service Examiners located at one of the employment offices of the Federal agency.

Federal Service Entrance Examination

The Federal Service Entrance Examination offers a unique avenue through which the college-caliber person may enter the Department. Introduced in 1955, the Federal Service Entrance Examination revolutionized Government recruiting by combining several separate examinations into one multi-purpose recruitment device. It is open to all college graduates and senior students, regardless of college major, and to others who can qualify on the basis of experience.

The Federal Service Entrance Examination is an integral part of the career staffing plan of the Federal Government. It helps the Government select people with potential for growth and for advancement up the career ladder.

Management Intern Program

The Federal Service Entrance Examination is also used to recruit a select number of people with outstanding management potential.

Candidates for the Management Intern Program must pass the Federal Service Entrance Examination. In addition, they must pass a Management Intern Examination and an oral interview. Those who meet the qualifications for an internship have an exceptional opportunity for a bright career in the Department of Agriculture.

Each year the Department selects approximately 10 interns, primarily for positions in the Washington, D.C., area. Management interns participate in a special training program lasting 1 year. During this time they receive intensive training—both formal and on-the-job. The program includes group seminars, special projects, rotational assignments, and opportunities for intern scholarships.

Interns are recruited by the Department at the GS–7 and GS–9 levels. Upon completion of the program, the intern is eligible for promotion. Those who continue to show promise are given continued attention and opportunities for development.

The Career System

The Federal Government is the largest employer in the United States. The U.S. Department of Agriculture, with its 100,000 employees, is the third largest department in the Federal Government. Like progressive private employers, the Department of Agriculture has a well-rounded career plan for its employees. The Government, as an employer, behaves in many respects like any other large employer—it hires, trains, promotes, and separates thousands of employees each year. However, because of its unique position as a public servant, the Government cannot function entirely like a private employer. In general, the Government is different in that:

- Selection and advancement are based on a competitive merit system.
- No discrimination because of race, religion, politics, national origin, or sex can be tolerated.
- Political activities of most employees are restricted.
- Administrative decisions are subject to judicial review.
- Strikes and asserting the right to strike are prohibited.

The career civil service is the foundation upon which the honest, effective, and efficient Federal Government has been built. The career staff of highly competent and well-informed people stands ready at all times to carry out effectively the policies of Federal administrators. It provides the flexibility, knowledge, objectivity, and technique necessary for the smooth operation of the Government. In return, the career staff receives leadership and direction from policymakers appointed by the President.

The foundation of the Federal Career Plan is the Career-Conditional Appointment System. Under this system, the rights and privileges of employees in such matters as employment, promotion, transfer, re-employment, and retention during reductions in staff are determined.

The appointment system takes into account the fact that not everyone who enters Federal employment intends to spend all of his working life in public service and that the Government may not have continuing jobs for all those who are employed at a given time, such as during an emergency. Thus, the Government accords more and greater rights and privileges to employees with full career standing than to those who have not met all requirements as careerists.

To gain full career standing, the employee must be selected competitively for his job and in most cases must complete 3 years of conditional service. The conditional period of service enables the employee to demonstrate his intention to make the public service his career and establishes the ability of the Government to provide a continuing career.

Career Opportunities

The U.S. Department of Agriculture ranks high in the liberal benefits afforded to its employees. Long recognized as a leader in the field of personnel management, the Department offers many career advantages to those seeking employment.

Among these advantages are (1) outstanding training opportunities, (2) pay schedules comparable to private industry, (3) promotional opportunities based on merit, (4) liberal vacation and sick leave benefits, (5) a generous retirement and family-protection program, and (6) participative group health and life insurance programs.

Training and Development

The U.S. Department of Agriculture has always recognized the importance of the professional development of its employees. In furtherance of this principle, the USDA Graduate School was created in 1921. This unique institution was instrumental in the development of Departmental employees long before Government-sponsored training was accepted throughout the Federal Government. However, the Government Employees Training Act now authorizes many types of training within Government and in non-Federal facilities, such as colleges, universities, manufacturing plants, and laboratories.

The Department of Agriculture is interested in equipping the employee not only to do his current job but also in his long-range development. Through participation in these educational programs employees have the opportunity to keep abreast of new and changing developments in their field and are able to prepare themselves for positions of greater responsibility.

Career Advancement

Advancement in the U.S. Department of Agriculture is unlimited, giving each employee the opportunity to grow professionally and assume increasingly responsible positions. The promotion programs of the Department are based upon the merit principle and are designed to identify and promote the best qualified employees.

The Department of Agriculture, like all employers, recognizes that the desire to get ahead is a major influence that motivates employees. Therefore, the Department is constantly improving its techniques of identifying capable and promising employees and encouraging and aiding them to prepare for more responsible positions.

Employees in many scientific positions have the opportunity to advance up the career ladder without assuming supervisory and management responsibilities. This enables them to leave the management to others while they concentrate on their scientific and research endeavors.

The Department of Agriculture, like other employers, follows the policy of promoting from within its own ranks; however, this consideration does not overshadow the fact that the best qualified person is sought for each position to be filled. On occasion, the Department finds the best available candidate for a vacant position elsewhere in Government or outside the Federal service.

This realization that "new blood" is essential to an organization is shared by all the Federal departments. Therefore, career opportunities are never limited in the Federal Government. People move within an agency to another location or transfer to other departments or agencies of the Government. This mobility enhances the career development of the employee and enables him to serve his Government in the most effective manner.

Salary

The year 1962 was one of the most important in the history of the Federal pay system. The Federal Salary Reform Act of 1962 established the policy that, for the same levels of work, salaries of Government employees should be comparable with salaries paid in private industry. To maintain the continued comparability of salaries, the Government conducts annual salary reviews and recommends any needed pay adjustments to Congress.

This means that a graduate choosing a career in the Department of Agriculture can now expect pay realistically geared to the economy. *The current pay schedule is located at the end of this section*, page 7.

Entrance level positions for college graduates usually are in grade GS–5, GS–7, or GS–9. With a bachelor's degree an applicant usually qualifies for GS–5. If the applicant is in the upper 25 percent of his class or has a "B" college grade average or has a B+ average in his major or other equivalent scholastic attainment, he may qualify for GS–7.

Ordinarily, a master's degree qualifies an applicant for GS–7 and a doctor's degree for GS–11. In some fields the holders of master's degrees and doctor's degrees, with outstanding scholastic records, may qualify for entrance at grades GS–9 and GS–12, respectively.

Most professional positions in engineering, physical sciences, and other shortage-category fields carry with them a higher starting salary. The Civil Service Commission has authorized recruitment at rates above the usual entrance salary for such positions as professional engineers, chemists, physicists, mathematicians, veterinarians, and accountants.

Research Environment

The Department of Agriculture has many people engaged in fundamental, applied, and developmental research. To college graduates interested in these positions, the research environment in the Department is very important.

Much of the Department's research is conducted in large, modern, and specially designed and equipped laboratories. Most research activities are located at or near educational centers. Thus, the agricultural research employee has ample opportunities for continued educational and professional advancement.

Scientists in the Federal environment are constantly involved in much of the Nation's scientific endeavor, whether it is through a program directly undertaken by the Department, one of its cooperative programs with States, or grants in aid to universities and colleges, or to foundations. The leadership responsibility for research enjoyed by Department scientists compares favorably with that of the other Federal agencies and private industry.

The scientist works in an environment conducive to utilizing his full creative talents to produce new and significant developments. He is free from administrative detail and is thus able to devote his time to research projects in which he has personal interest. Research initiative is encouraged and has led to many of the startling research discoveries of which this Department is justifiably proud.

Professional Recognition

Opportunities for professional recognition are excellent. The Department of Agriculture encourages and helps its employees to gain professional recognition in their special fields. Participation in activities of professional societies and publication of papers in professional journals or agency publications is encouraged. The Department sponsors seminars, symposia, and other meetings of professional groups where employees meet and exchange ideas.

Employment Benefits

Fringe benefits in the Federal service compare favorably with those available anywhere. These are some of the principal ones:

Vacation and Leave Privileges

Leave privileges are designed to maintain at a high level the health, efficiency, and morale of employees.

Annual leave.—Each year, employees earn annual leave for vacations and other purposes, as follows: employees with less than 3 years of service—13 days; those with 3 to 15 years of service—20 days; and those with 15 years of service—26 days. For leave purposes, time spent in military service counts as years of service.

Annual leave that is not used in any year may be accumulated up to a limit of 30 days. If an employee leaves the Federal service, he is paid a lump sum for the amount of annual leave he has accumulated.

Sick leave —Sick leave is earned at the rate of 13 days each year and is used for illness and for medical examination or treatment. Unused sick leave accumulates without limit and provides employees financial protection for periods of prolonged illness.

Military leave.—Members of the National Guard or military reserve components are entitled to military leave for training or active duty. A maximum of 15 days is allowed each year with full pay and without charge against annual leave.

LEAVE WITHOUT PAY.—Leave without pay may be granted for reasons which are mutually beneficial to the Government and the employee; for instance, for full-time graduate work or other advanced study that is related to the employee's work.

Medical and Compensation Benefits

A service-connected illness or injury entitles an employee to medical attention, hospitalization, and compensation. These benefits cost the employee nothing.

Several group-health insurance plans are available to all full-time permanent employees under a voluntary program; part of the premium is paid for by the Department. Because of the wide variety of plans offered, the employee is able to select the plan that best suits his needs. Hospitalization and surgical benefits are provided in all policies. The specific benefits and the cost of insurance depends on the type of plan selected and the coverage desired.

Life Insurance

Life insurance is available at low cost to full-time permanent employees. This insurance is not mandatory, but most employees take advantage of it to help provide economic security for their families. No medical examination is required.

Retirement System

The Federal Service Retirement System is sound and attractive. It is one of the outstanding fringe benefits of Federal employment. It incorporates not only the features of a retirement program but also family-survivor protection in the event of the employee's death. After 5 years of service, the employee is eligible for disability retirement if he becomes totally disabled.

Employees and the Department contribute jointly to the retirement fund. The employee's share is 6½ percent of his annual salary. If an employee leaves the Federal service he may withdraw his share of the contribution. If he has 5 years or more of Federal service, he may leave this deposit in the retirement fund for an annuity at age 62.

* * *

This information illustrates the advantages of the Federal career system. The benefits are equal to and even exceed many of the systems of private industry. The Federal career system combines financial reward with the less tangible but equally important personal satisfactions obtained from having a challenging and worthwhile job.

Current Salary Schedule*

PAY SCHEDULE EFFECTIVE JULY 1968

	Grade	Entrance Salary	In-grade Increase	Maximum Salary
	GS–5	$5732	$192	$7456
	GS–6	6321	211	8221
Bachelor's Degree	GS–7	6981	233	9078
	GS–8	7699	257	10012
Master's Degree	GS–9	8462	282	11000
	GS–10	9297	310	12087
Doctor's Degree	GS–11	10203	340	13263
	GS–12	12174	406	15828
	GS–13	14409	480	18729
	GS–14	16946	565	22031
	GS–15	19780	659	25711
	GS–16	22835	761	28923‡
	GS–17	26264	875	29764‡
	GS–18	30239‡		30239‡

RATES FOR CERTAIN SHORTAGE CATEGORY POSITIONS†

	Grade	Entrance Salary	In-grade Increase	Maximum Salary
Microbiologist	GS–5	$6498	$192	8224
	GS–7	7214	233	9311
Engineer, Physicist, Chemist, Forest Products Technologist, Mathematical Statistician	GS–5	7456	192	9184
	GS–7	9078	233	11175
	GS–9	10154	282	12692
	GS–11	11563	340	14623
	GS–12	12580	406	16234
Accountant and Auditor	GS–5	6881	192	8608
	GS–7	7913	233	10010
	GS–9	9026	282	11564
Veterinarian	GS–9	9026	282	11564
Geologist	GS–5	7456	192	9184
	GS–7	8845	233	10942
	GS–9	9872	282	12410
	GS–11	10883	340	13943
Mathematician	GS–5	7265	192	8992
	GS–7	8845	233	10942
	GS–9	10154	282	12692
	GS–11	11563	340	14623
	GS–12	12580	406	16234

* *There will be a pay raise on July 1, 1969, as provided by the Federal Salary Act of 1967.*

† *The Civil Service Commission has the authority by law to revise the rates and/or job categories covered. The above jobs and rates are in effect as of the issue date of this publication.*

‡ *Pending further legislation, the maximum at this level is $28,000.*

SECTION
II

PROFILE
OF THE DEPARTMENT

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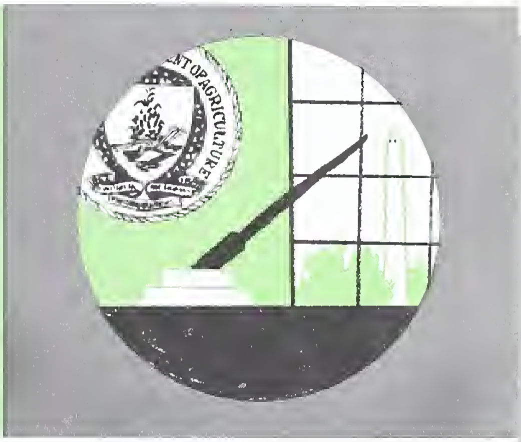
Office of the Secretary



▪ The Secretary of Agriculture is responsible for the administration of programs of great importance to America's farmers and consumers.

These programs have a significant impact on the entire economic and social development throughout the United States as well as in the international area.

They play an increasingly vital role in the economic and social development in our rural areas and in our rural-urban population balance.

These substantive activities are carried out through the program agencies of the U.S. Department of Agriculture (USDA).

Departmental management leadership and coordination is provided through the staff offices of the Secretary.

Office of Budget and Finance

The Office of Budget and Finance has responsibility for budgetary and financial administration in the Department.

As a staff office, the emphasis is on the broad aspects of the budget process, rather than on the figure-handling details of budgeting. Consideration is given to proposed legislation affecting activities of the Department. Accounting systems are designed to establish accountability for funds available, and to provide financial information for administrators of USDA programs.

Work of the Office includes staff services to the Secretary, technical guidance and assistance to program agencies within the Department, and liaison activities within the Bureau of the Budget, the Treasury Department, the General Accounting Office, and the appropriations committees of the Congress.

Office of Information

The Office of Information develops, plans, and carries out the Department's information policies and programs. The basic purpose of these efforts is to provide useful information on agriculture and related subjects to farmers, scientists, homemakers, and the general public. The Office provides departmentwide leadership on overall information programs and activities in support of departmentwide goals and missions.

Publication manuscripts prepared by Department agencies are cleared by the Office of Information for policy and conformance to high editorial standards. About 500 new Department publications are printed each year.

All USDA press releases, articles, special reports, and other material issued in Washington for newspapers, magazines, the farm press, and radio and TV stations are issued by the Office of Information.

The Department's research, service, and program activities require 3,500 to 4,000 press releases, articles, and special reports a year.

More than 1,000 radio tapes on farm and consumer subjects are sent to radio stations each week. Additional written material for broadcast is sent to over 100 stations.

Television productions include "Across the Fence," a half-hour program currently appearing on 18 stations across the Nation. The Office also furnishes feature color-slide presentations, including optional scripts, to about 200 stations, and motion pictures to well over 100 stations a year.

Staff members plan and produce motion pictures, filmstrip and slide presentations, news-type photographs and picture stories; create exhibits for use in the United States and abroad; design some 300 publications each year; and prepare art for training use, for a variety of highly scientific and technical reports, and for simple pamphlets and brochures. Some 90 motion pictures and TV spots are produced annually.

Booklets, magazine articles, briefing materials for the Secretary's office, and the coordination of information on special events, programs, and policies of the Department require creative writing talents. The "Yearbook of Agriculture," "Service," USDA's monthly report to consumers and "Copy Lines," a bimonthly magazine feature service are examples.

Office of Management Improvement

The Office of Management Improvement provides leadership in planning, administering, and evaluating the Department's management program. The Office initiates appraisals of management activities and operating policies of the Department. It designs and revises management systems and develops guidelines for a comprehensive data processing program. It provides centralized payroll, personnel reporting, and related services.

Office of Management Services

The Office of Management Services, a consolidated support organization, furnishes budget, fiscal, personnel, information, procurement, property, space, and related management services to selected program agencies of the Department. Currently, OMS serves 19 agencies, including the Office of the Secretary. Through consolidated facilities, OMS is able to furnish support services at a lower cost than if each agency provided its own services.

Office of Personnel

The Office of Personnel develops and implements policies for a progressive personnel management program responsive to the needs of the Department.

Policies and procedures are formulated and issued in the areas of employment, position classification, performance evaluation, training, employee relations, recognition and incentives, and personnel records and reports.

The Office of Personnel is especially interested in identifying management needs and uses for personnel data. Analysis of available computer data provide information which management can use to make quicker and better decisions on how to meet program objectives.

Office of Plant and Operations

The Office of Plant and Operations administers departmentwide support and service programs including: space, equipment, transportation, real estate and property management; procurement; contracting; and it provides related technical assistance. It also provides central printing, stores, telecommunication services, and a centralized mail distribution system at Department headquarters offices.

Planning, Evaluation, and Programing Staff

The Planning, Evaluation, and Programing Staff provides the Secretary, the Under Secretary, and other top policy officials with information and analyses needed to make program planning and budget decisions. The staff, composed of economists and management analysts, conducts comprehensive reviews of program goals and objectives, identifies concrete measures of program effectiveness, and develops and compares the costs and effectiveness of alternative ways to accomplishing objectives. The staff is responsible for the design and operation of the Department's Planning-Programing-Budgeting System.

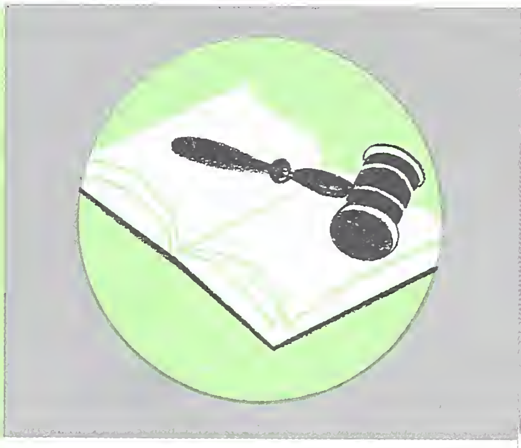
Employment Opportunities

The staff offices of the Secretary offer a unique opportunity for the graduate interested in a challenging career in administration. In the environment of overall management, the graduate has an excellent opportunity to make important contributions to the effectiveness of the Federal Government.

Most graduates enter at the GS–7 and GS–9 levels. Promotional opportunities are excellent at all levels. The employee has an outstanding opportunity to advance rapidly to positions of greater responsibility and involvement in the great issues of our time.

For more information write: Division of Personnel, Office of Management Services, U.S. Department of Agriculture, Washington, D.C. 20250.

Office of the General Counsel



■ The Office of the General Counsel (OGC) performs all the legal work for the Department of Agriculture. It was established as a part of the Office of the Secretary of the Department in 1905 and was accorded full agency status within the Department in 1935.

Before 1933, the principal functions of the Department had to do with research and scientific activities. Therefore, a relatively small group of lawyers and their clerical assistants were able to perform the legal work. With the inauguration of the many "action programs" by the Department, however, the type of legal work performed changed considerably.

Nature of Activities

The fields of law and program areas in the Department of Agriculture are discussed next.

Administrative Law

The Department administers more than 50 regulatory statutes—far more than any other agency in Government. These laws deal with all phases of the handling in interstate commerce of agricultural commodities and related products to prevent unfair practices, to insure orderly marketing, and to protect the public health, as well as to protect the animal and plant life of the country from the spread of diseases.

Lawyers in the OGC act as trial counsel in all administrative proceedings of an adversary nature.

Department lawyers serve as counsel for the Secretary of Agriculture in proceedings before other Federal and State regulatory bodies, including the Interstate Commerce Commission, Federal Maritime Board, Federal Power Commission, and State public service commissions.

Business and Corporate Law

Department attorneys serve as legal counsel to the Commodity Credit Corporation and the Federal Crop Insurance Corporation.

Lawyers who are assigned as counsel to these corporations handle an infinite variety of legal work that arises in dealings with large commercial enterprises. They also handle other legal problems that are peculiar to corporate agencies of the United States which operate under broad Federal charters and a complex body of statutes.

Legislative Drafting and Interpretation

Proposed legislation emanating from the Department of Agriculture is drafted in OGC. Its attorneys work with Congressional committees and their staffs in drafting bills. They also prepare Department reports on bills, participate in Congressional hearings, and interpret statutes for Department administrators.

Domestic Farm Law

Members of the office participate as legal advisers to Department officials in the development and administration of many varied and complex farm programs. These programs are designed to improve and protect farm income, dispose of surpluses, establish and enforce farm acreage allotments and marketing quotas, reduce surplus agricultural production, and facilitate orderly distribution and marketing of agricultural commodities.

Agricultural Credit

Lawyers perform a broad variety of legal services relating to loans made or insured by the Farmers Home Administration for the acquisition and improvement of farm real estate, farm operations, rural housing, and for the conservation and development of soil and water resources.

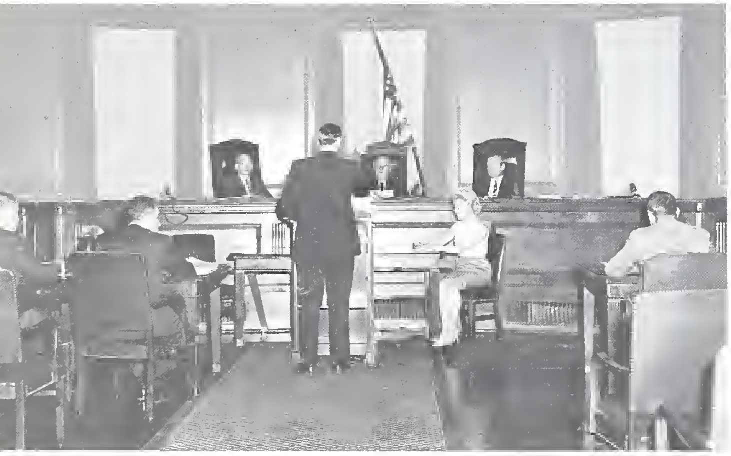
Utility Financing

Attorneys handle the legal work for the Rural Electrification Administration, which has more than $4 billion in outstanding loans to more than 1,700 borrowers, who own and operate electric and telephone systems.

In addition to the legal services that REA needs in making secured loans to qualified borrowers, the legal work covers the fields of corporate financing, municipal bond financing, and the construction and operation of electric and telephone systems.

Foreign Market Development

Department attorneys serve as counsel in the formulation and implementation of many programs involving exports and imports of agricultural commodities.



Forestry, Land, and Water Law

Members of the Office serve as legal counsel for the Department in its administration of the national forests, submarginal lands, and land acquisition programs. Attorneys give legal advice on the Nation's soil and water conservation activities.

The legal work relates to administrative proceedings, legislation, contractual matters, protection of forest properties, water rights, and the acquisition—including condemnation—of lands and interests in lands.

Management and Research

Lawyers perform legal services needed in managing the Department of Agriculture as an agency within the Executive Branch of the Federal Government—somewhat like "house counsel" for a major industrial corporation.

Patent Law

Department lawyers prepare and handle patent applications and represent the Department in all patent proceedings. Discoveries by Department of Agriculture research scientists result in more than 100 new patent matters each year. These include discoveries in chemistry, medicine, industry, electronics, and machinery.

Federal-States Relations

Many Department programs are complemented by similar programs in States. These programs raise important questions in Federal-State jurisdiction, in constitutional and statutory authority, and in other areas that require the balancing of State and Federal interests.

Career Opportunities

Each lawyer has an opportunity to engage in many legal functions that relate to his assignment. Attorneys give oral advice, write opinions and briefs, draft legal documents and regulations, draft and interpret legislation, and participate in hearings and trial work.

The entrance grades for attorneys in OGC are GS–7 and GS–9. The highest grade for attorneys, excluding the General Counsel, is GS–18.

Experienced attorneys work closely with the new attorneys to help them develop their fullest potential. Opportunities for advancement to higher grades are excellent for those whose performance merits promotion.

Most of the openings for new attorneys are in the Washington Office, although a few occur from time to time in the field service.

For additional information about the career opportunities for attorneys in the Office of the General Counsel, please contact:

Division of Personnel
Office of Management Services
U.S. Department of Agriculture
Washington, D.C. 20250

Office of the Inspector General

■ The Office of the Inspector General (OIG) is organizationally situated at Secretarial level. It is an arm of the Secretary of Agriculture. As a separate entity, responsible only to the Secretary, it enjoys both stature and independence.

Nature of Activities

OIG has the audit and investigation responsibility for the U.S. Department of Agriculture. In the discharge of these functions it serves not only the Secretary, but officials at all levels of management in the Department.

It operates in a Department made up of 26 separate organizations, each with its own purposes, programs, policies, procedures, and personnel—a Department with diversified activities and many levels of management—a Department that is active throughout the United States and in more than 100 foreign countries.

OIG's job, therefore, is to look into a multiplicity of activities, at home and abroad; to evaluate programs, regulations, procedures, and practices; to make findings, and to submit suggestions and recommendations that will help the agencies to improve both their management and operations.

It also conducts investigations of alleged wrongdoing in matters that are within the jurisdiction of the Department of Agriculture.

In all aspects of its work OIG emphasizes the importance of integrity, independence, objectivity, and high professionalism.

In common effort with all agencies of the Department, the Office of the Inspector General seeks to achieve the excellence required in public service.

In order to provide adequate coverage for all departmental activities, OIG has established seven regions with regional headquarters in the following cities:

- Kansas City, Mo.
- New York, N.Y.
- Temple, Tex.
- San Francisco, Calif.
- Atlanta, Ga.
- Hyattsville, Md.
- Chicago, Ill.

Overseas work is handled by a staff operating from the Washington offices.

Career Opportunities

OIG recognizes that organizational growth and personnel development are interdependent. Each is essential to the other.

The employee is therefore OIG's most important resource. As such, his careful selection is only the beginning of an organized program of employee improvement.

His initial training is designed to aid the employee in bridging the gap between theory and practice; to assist him in making an early and pleasant adjustment to the OIG environment and its work. Classroom and on-the-job training will be provided to develop the skills involved in conducting and reporting audits and investigations.

Subsequent training, including opportunities for self-development, is planned to encourage the growth of the employee's full productive and earning capability as rapidly as possible. A variety of in-service training programs, to facilitate his growth, may well culminate in opportunities to attend executive development training courses, and to work for advanced degrees at institutions of higher learning.

OIG has many interesting and challenging opportunities for those with education or experience in the fields of law or accounting and business administration.

Additional information concerning these opportunities can be obtained by writing to:

Division of Personnel
Office of Management Services
U.S. Department of Agriculture
Washington, D.C. 20250

Agricultural Research Service

■ Agricultural research is one of the hidden but vital forces that affects everyone's life each day. It may be evident in the form of a wash-and-wear cotton shirt, an aerosol spray "bomb," or the reconstituted orange juice you had for breakfast. These are all results of projects conducted by the Agricultural Research Service (ARS).

ARS is one of the largest agencies within the Department of Agriculture and probably the largest civilian research agency in the world. More than 15,000 people are employed by ARS on a full-time basis. Close to 3,500 of them, representing 35 scientific specialties, are engaged in research work.

The future of agriculture in the United States depends in large measure on agricultural science and scientists. We must see that our total scientific effort maintains our world leadership in agriculture. The plight of many newly emerging nations shows the importance of agriculture to the total economy of a nation. The objectives of ARS, which are determined by this goal, are to protect gains already achieved, improve the balance of agriculture, and guarantee abundance for future Americans.

Nature of Activities

ARS coordinates scientific research programs within the Department and conducts fundamental, applied, and developmental research in the production and utilization of agricultural products, home economics, and human nutrition. It also administers control and regulatory programs closely related to this research. Much of the work is done in cooperation with State agricultural experiment stations, State departments of agriculture, and related organizations.

The work of the Agricultural Research Service is extremely diversified. Research is conducted on methods to improve the production and breeding of animals and plants; means to develop practical methods for destroying the harmful insects and permit the increase and spread of beneficial ones; problems of concern to soil and water conservation; agricultural engineering problems designed to improve the use of power, labor, machines, and materials in farming; clothing; textiles; consumer and food economics; the nutritional requirements of people; and on problems designed to discover new or improved methods of utilizing agricultural commodities of all types.

Within these broad areas of research, highly specialized studies are conducted in both basic and applied research. In recent years, ARS has emphasized its basic research by establishing pioneering research laboratories that conduct work on mineral nutrition, plant physiology, plant virology, insect pathology, insect physiology, blood antigens, animal genetics, microbiological chemistry, chemistry of animal proteins, allergens in agricultural products, plant fibers, seed proteins, plant enzymes, cellular metabolism, and physics of fine particles.

ARS also administers the laws and regulations pertaining to the production of veterinary biologics; eradication and control of plant pests and diseases; plant inspection and quarantine; and the effectiveness of pesticide products and the correctness of their labels.

Career Opportunities

These programs require persons trained in the life and physical sciences. Among them are:

Crops Research.—Agronomists, pathologists, nematologists, horticulturists, geneticists, physiologists, chemists, botanists, and range conservationists.

Entomological Research.—Entomologists in various specialized fields of entomology, insect physiologists and pathologists, geneticists, chemists, and microbiologists.

Soil and Water Conservation Research.—Soil scientists, microbiologists, agricultural engineers, chemists, and physicists.

Livestock Research.—Veterinarians, chemists, geneticists, physiologists, animal nutritionists, and animal, poultry, and dairy husbandmen.

Marketing Research.—Bacteriologists, chemists, agricultural and industrial engineers, entomologists, marketing specialists, plant pathologists, and physiologists.

Nutrition and Consumer-Use Research.—Chemists, physicists, bacteriologists, physiologists, nutritionists, architects, statisticians, and home economists.

Agricultural Engineering Research.—Agricultural engineers with specialized training in such fields as farm machinery, farm electrification, and soil and water.

Utilization Research.—Chemists, physicists, microbiologists, and engineers.

Animal Regulatory Work.—Veterinarians, chemists, pathologists, and microbiologists.

Plant Regulatory Work.—Persons trained in the biological sciences with emphasis on plant sciences and entomology.

These professionals are employed in grades GS–5 through GS–18. In the research area, persons with bachelor's degrees, without experience, enter at grades GS–5 and GS–7; persons with master's degrees at grades GS–7 and GS–9; and those with doctor's degrees at grades GS–11 and GS–12. The higher grade in each instance is available to persons who have demonstrated superior scholastic ability.

Advancement opportunities in the Agricultural Research Service are excellent for those who demonstrate initiative and ability. Merit promotion plans, tailored to meet the varying requirements of different occupational groups and work situations, are in operation throughout the Service. In-service training is conducted by rotating job assignments and through the use of seminars, meetings, and other means for exchanging scientific information and ideas. Every encouragement is offered to employees with bachelor's and master's degrees to continue their formal graduate training on a part-time basis. This can be done through adjusting work schedules or by granting employees leave to work on their doctor's degrees.

Research is conducted in an environment that is particularly favorable to scientific study and exploration. Much of it is done in large, modern, specially designed, well-equipped laboratories and greenhouses. Well-developed experimental lands, animal barns and shelters, and special-purpose buildings, facilities, and equipment are provided in many locations throughout the country. A high proportion of these are at or near educational centers because much of the Service's research is conducted as a joint cooperative effort with State universities or State agricultural experiment stations.

To the maximum extent feasible, ARS scientists are provided with supporting personnel, services, and facilities to aid them in their work.

Workers in the regulatory programs are headquartered in more than 500 cities and towns in the continental United States and in Puerto Rico and Hawaii.

Employees of ARS enjoy an unusual opportunity to do interesting, challenging, and important work in association with world scientific leaders. They work in an atmosphere designed to promote a sense of personal accomplishment in the advancement of agriculture.

Agricultural Stabilization and Conservation Service

■ In a world where food is often scarce and millions of people go hungry, the United States is providing abundantly for its own people and sharing its production and know-how in helping underdeveloped countries to improve their local agricultural resources.

The Department of Agriculture has the responsibility for helping U.S. farmers in their production-conservation job. Through the agricultural programs it administers, the Agricultural Stabilization and Conservation Service (ASCS) plays an important role in the Department's effort.

Nature of Activities

The major programs of the Service are agricultural conservation, price support, supply adjustment, storage, loans, procurement and sales operations, national defense planning, and farm disaster assistance. These programs which benefit both farm and city people are authorized by the Congress. Their objectives are: (1) To continue production of food and fiber at reasonable prices and in quantities sufficient to meet all foreseeable national needs, (2) to enable farm operators to earn incomes more nearly comparable to those earned in nonfarm occupations, (3) to conserve our land and water resources, and (4) to adjust and balance the supply of major farm products. Such farm programs bear directly on farm prosperity; farm prosperity bears directly on business prosperity. As farm income improves, farmers buy more feed, farm machinery, gasoline, tires, transportation vehicles, fertilizers and pesticides, materials for repair and construction of buildings, as well as food, clothing, household furnishings, and other equipment. Farm prosperity also bears directly on employment in a host of farm-related and other industries. In fact, more than a third of the total work force in the United States is directly affected by farm income and production.

ASCS handles the supply management job of the Commodity Credit Corporation (CCC), a unique Government corporation that acquires, stores, and sells farm commodities valued at billions of dollars. This work is directed toward protecting the producers from some of the price uncertainties over which they have no control. Activities carried on by the Agricultural Stabilization and Conservation Service for the CCC include the price support, commodity stabilization, storage facilities, commodity export, and commodity supply, purchase, and sales programs. In terms of impact on the national economy, the most important of these are the price support and commodity stabilization programs. The Service also conducts certain financing and operating functions concerned with the International Wheat Agreement and export sales for foreign currencies.

The Service deals on a day-to-day basis with hundreds of thousands of producers, processors, carriers, exporters, handlers, warehousemen, and others.

Electronic data processing equipment, such as the centralized accounting programs for price support and storage inventory, is utilized for much of the work. This equipment is located at two centers—one at New Orleans, the other at Kansas City.

One of the most important of the agricultural programs authorized by Congress to stabilize supplies is that of production adjustment through agricultural acreage allotments and marketing quota programs. Acreage allotments are used to help bring into balance the production of five basic-crops—cotton, wheat, rice, peanuts, and tobacco. When supplies are larger than normal, as defined by law, marketing quotas are used, subject to the approval by vote of two-thirds of the producers of the crops involved.

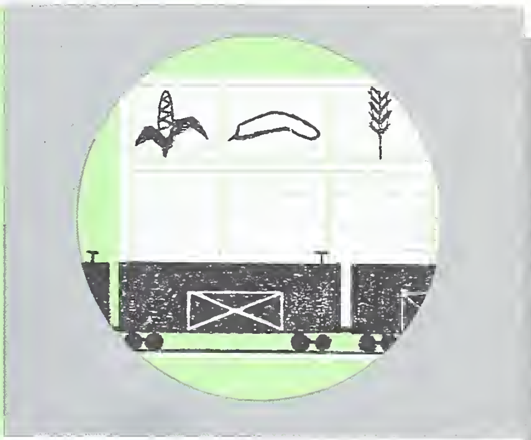
Local committees composed of and elected by farmers help to carry out ASCS programs. The use of these committees follows the tradition of giving the citizen a voice in and responsibility for agricultural affairs. This tradition has survived the technological revolution in agriculture and the political, social and economic changes in the Nation. Farmers place great confidence in the ability and integrity of elected local committeemen. Such tradition and confidence led the Congress to give farmer committees extensive responsibility for running local farm programs. The ASC farmer committees operate within official regulations designed to carry out Federal laws. However, within the regulations they apply their judgment and knowledge and arrive at their own decisions. ASC committees have many duties and responsibilities. For example, in production adjustment they determine the size of individual farm acreage allotments each year, establish normal yields on farms, consider complaints of producers, supervise the referenda on marketing quotas, and determine farmers' eligibility for program benefits. In conservation, they formulate local programs, review farmer requests for cost-sharing, and recommend changes in State and national programs.

Career Opportunities

ASCS administers these nationwide programs through commodity offices and State and county offices located in the 50 States and Puerto Rico.

Because of these varied programs and wide geographic distribution of activities, many interesting job opportunities exist within ASCS. Some of these positions are agricultural in nature. Other positions are in administration and management. Still others, such as computer systems analysts and computer programers, have been created by the need for commodity and management data.

Commodity Exchange Authority



■ The buying and selling of commodities on the trading floors of the Nation's commodity exchanges provides open and competitive prices which are vital to the successful functioning of the American economic system.

The futures markets, conducted by such commodity exchanges as the Chicago Board of Trade and the New York Cotton Exchange, stand at the center of the marketing system for a number of farm commodities. Therefore, farm and food trade people across the country watch closely the prices of "futures" registered in these markets.

Prices registered on the trading floors of large grain exchanges set the pace in the marketing of wheat, corn, soybeans, and certain other commodities at points throughout the United States.

Nature of Activities

Futures prices are registered when traders make purchase and sale contracts to deliver a commodity in a period ahead—in a May, July, December or other futures-delivery month. Futures prices are thus not only guides for today's marketing, they also give market opinion of prices in the months ahead.

It works like this. A farmer gets the latest Chicago corn futures price from his radio, television, or newspaper. From this futures price he can determine the going price of cash corn at a nearby elevator, taking into consideration transportation and handling charges. If he thinks the price is favorable, he may decide to sell. If the price has declined, he may hold off. In this way, the prices registered in futures markets serve as base prices in guiding farmers' marketing decisions—whether to sell now, to put a crop under a price support program, or to hold for later sale. Having the latest futures prices helps the farmer keep his marketing decisions in his own hands and helps him stay in a competitive position.

If trading on commodity exchanges is not conducted according to equitable rules and practices which are constantly enforced, unfair practices or shrewd operations may distort or depress farm prices, or open the way to price manipulation or market corners.

Why Regulation Is Needed

In the early period of futures trading, in the 1870's and 1880's, speculative excesses and abuses of futures trading sometimes outweighted its economic services. Big speculators and market leaders openly paraded their power over prices. There were so many market corners and price manipulations that many people thought of the futures markets as gambling institutions rather than as aids to marketing. There developed a strong demand for Federal regulation of futures trading, coming mainly from farmers and farm organizations. Basic provisions of the present Commodity Exchange Act were enacted by the Congress in 1922, and strengthened and extended in 1936 and since then.

The CEA which administers the Commodity Exchange Act, was established in 1947. It was preceded by the Grain Futures Administration (1923–36) and the Commodity Exchange Administration (1936–42). Its work was consolidated with other Department agencies from 1942 to 1947.

Regulating the Markets

Under the Commodity Exchange Act, the operation of futures markets in regulated commodities and dealings in futures by commodity brokers are privileges that may be exercised only on the basis of Federal licensing and registration.

This means that it is unlawful in the United States to conduct a futures market in regulated commodities except on an exchange that has been designated under the act as a "contract market."

Currently there are 17 commodity exchanges designated as contract markets, including the Chicago Board of Trade, Chicago Mercantile Exchange, Minneapolis Grain Exchange, Kansas City Board of Trade, New York Produce Exchange, New York Mercantile Exchange, New York Cotton Exchange, and New Orleans Cotton Exchange.

The nature of commodity exchanges is such that most of those who trade must do so through brokers. This means they must necessarily place a high degree of trust and confidence in brokers. The Commodity Exchange Act requires the annual registration of all brokerage firms—futures commission merchants—and all floor brokers executing orders for others on the floor of an exchange.

The framers of the act clearly granted, and the courts sustained, regulatory power to the CEA to examine at any time the books and records of contract market members and the operations of traders.

Supervision of trading now covers 14 commodities for which one or more exchanges are conducting markets. These are wheat, corn, oats, rye, grain sorghums, soybeans, cotton, wool, wool tops, eggs, potatoes, cottonseed oil, soybean oil, and soybean meal.

CEA officials enforce limits on speculation in wheat, corn, oats, rye, soybeans, cotton, potatoes, and shell eggs. These statutory limits on the holdings and daily trading of large speculators help to curb unwarranted price movements, and enforcement of these limitations is an important part of the day's work in CEA.

Safeguarding Hedging

Futures trading provides another essential marketing service—hedging. This is nonspeculative trading in futures to protect actual handlers of commodities from losses because of price fluctuations.

Many commodity firms, merchants, farmer cooperatives, and some individual farmers make hedging sales in futures to reduce risks in actual commodities owned. Merchants and processors needing an actual commodity may make hedging purchases in futures to reduce price risks on forward sales of cash commodities or byproducts. One of CEA's jobs is to safeguard commodity hedging facilities so that the competitive markets are able to shoulder a more substantial part of the cost of carrying commodities.

Enforcement of the Regulations

CEA investigates possible violations of the Commodity Exchange Act and takes corrective steps if evidence of violations is found.

The principal duties of CEA people are: 1) to prevent price manipulation and market corners; 2) to prevent the dissemination of false and misleading crop and market information affecting commodity prices; 3) to protect market users against cheating, fraud, and abusive practices in commodity transactions; 4) to safeguard handling of traders' margin money and equities by preventing the misuse of such funds by brokers; and, 5) to insure the benefits of exchange membership to farmer cooperatives. CEA employees also are responsible for conducting investigations of trading and market operations, and for providing information, statistics, and reports to the public on trading and marketing and on conditions that affect the markets.

Employment Opportunities

CEA is a comparatively small agency and therefore has a limited number of job vacancies. During the next fiscal year, the agency plans to recruit a few college graduates for positions as commodity analysts (economists) and accountants.

For additional information about CEA and the career opportunities it offers write:

Division of Personnel
Office of Management Services
U.S. Department of Agriculture
Washington, D.C. 20250

UNITED STATES DEPARTMENT OF AGRICULTURE

Consumer and Marketing Service

■ As the challenge in American agriculture during the past century was in production—the challenge today is in marketing.

For while American farmers have become the world's most efficient producers, they still face many unsolved marketing problems. Among them are such difficult ones as (1) how they can supply the vast quantities of uniform-quality products needed to supply today's mass merchandising system, and (2) how they can achieve the bargaining power they need to deal with the ever-increasing buying power of the large organizations with which they do business.

Another problem not yet fully solved is that of assuring that no person in this country is without an adequate diet—that our farm abundance is fully shared with those unable to buy enough food.

Nature of Activities

It is the job of the Consumer and Marketing Service (C&MS) to help solve problems such as these—and to help bring order and efficiency to the Nation's marketing system—to underwrite the quality and wholesomeness of much of our food supply to help hold down the cost of marketing which today accounts for the major part of the consumer's food dollar.

C&MS carries out these responsibilities through four broad program areas, marketing services, market regulation, consumer protection, and consumer programs.

Marketing services, such as standards of quality, grading, and market news, provide the basis for much of the trade in farm products that goes on across the country. The nationally uniform language of quality provided by C&MS through Federal grade standards and Federal-State grading services makes it possible for farmers to know the quality of their products—and get a price in line with that quality; for packers, processors, and shippers to sell on the basis of quality to buyers who never see the product before delivery; for consumers to buy with assurance of quality plainly marked on the package of the product.

But keeping these services up to date—to meet the needs of a fast-changing marketing system—is a constant challenge. There is constant need to develop new standards and revise older ones to provide better measures of marketability and value—and there is a constant need to develop more objective and more efficient ways of grading to keep pace with the increasing mechanization of farming and processing.

Similar challenges are presented in the field of market regulation, which includes administering such laws as the Perishable Agricultural Commodities Act, the Federal Seed Act, and the U.S. Warehouse Act. Many of these programs originated 25 to 50 years ago. They must be adjusted frequently to meet the needs of today and tomorrow.

This is also true in the dynamic marketing agreements and orders program. Through marketing orders, and sometimes agreements, C&MS provides farmers with a tool they can use to work together to solve marketing problems they cannot solve individually. Orders are a means through which farmers can organize for marketing—increase their bargaining strength—fit supplies to demand. They serve to even out peaks and valleys of sup-

ply, make marketing more orderly, and thus assure consumers of reliable supplies and reasonable prices for the products regulated.

C&MS specialists must tailor each order to the individual commodity and its markets—and keep it finely attuned to constantly changing conditions.

Assuring the wholesomeness of the Nation's supply of meat and poultry is a major part of the consumer protection function C&MS carries out. Inspection of these products—for which consumers spend more than for any other food—is required under Federal law if the product moves in interstate commerce. The job is immense—it involves the checking of every bird and animal processed in plants operating under inspection—it means supervising every step in processing—testing finished products—analysis of ingredients—approval of labels for accuracy and adequacy.

Career Opportunities

Many more qualified people are needed to work on the frontier that is marketing today—to help solve the problems and the challenges that face today's farmer and to help improve the marketing system that affects the life of every person in this country.

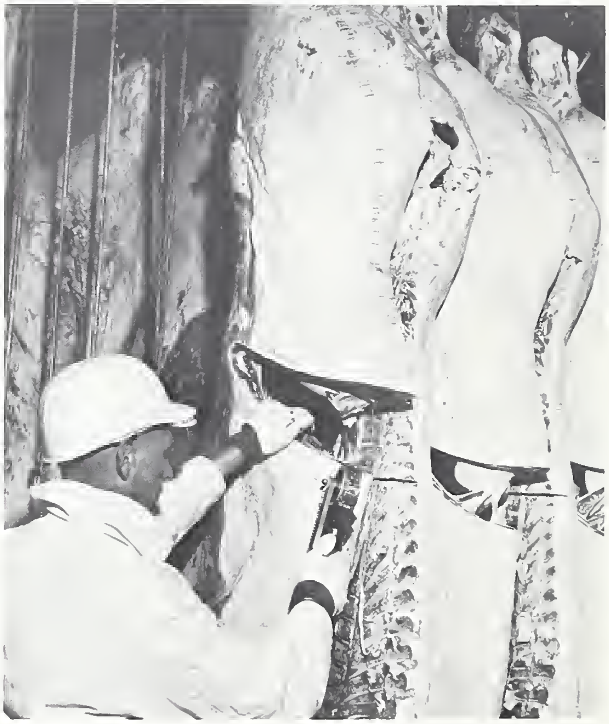
Those who work with C&MS are stationed all across the country, close to the people they serve. The agency is a highly decentralized but tightly managed organization comprised of 20 divisions, through which it directs the activities of about 8,000 employees, 85 percent of whom are located in some 560 field offices. These offices are generally operated by from one to a half dozen people.

In much of its work, C&MS cooperates with State departments of agriculture, trade organizations, producers, and others engaged in handling, transporting, and distributing farm products.

C&MS personnel, therefore, come into contact with a wide variety of individuals and a wide variety of work. The agency needs and employs persons with many different types of academic training and work experience.

Currently, the Service needs persons majoring in marketing, economics, horticulture, animal husbandry, entomology, biological sciences, engineering, journalism, and a number of other fields. Such people can qualify for jobs as marketing specialists, agricultural commodity graders, engineers, biological scientists, economists, writers, management specialists, etc., at grade levels ranging from GS–5 through GS–18.

The majority of new employees are hired at entrance grades GS–5 through GS–11, depending on training and experience. On-the-job training is given all new employees, and special additional training programs are provided when needed. The opportunities for advancement are excellent, but depend primarily upon the ability of employees to take on additional responsibilities.



Cooperative State Research Service

The success and continuing productivity of American agriculture and forestry are dependent upon the discovery and application of new knowledge to meet complex problems and to train an adequate number of scientists and specialists. Since 1862 the Department of Agriculture and the land-grant colleges have developed a unique partnership to meet these needs.

Agricultural research and development programs are conducted by the State agricultural experiment stations, the U.S. Department of Agriculture, industry, and private foundations. The Cooperative State Research Service (CSRS) is the Department agency established to maintain close coordinating, review, and advisory relations with the State agricultural experiment stations, schools of forestry, and other institutions of higher learning which make important contributions in agriculture and forestry through science and education. The entire staff of CSRS is located in Washington, D.C. State agricultural experiment stations have been established in each State and Puerto Rico, usually as branches of the land-grant colleges.

The Secretary of Agriculture is authorized under the Cooperative Forestry (McIntire-Stennis) Act to cooperate with the several States for the purpose of encouraging and assisting them in carrying out programs of forestry research. The Department supports the work of the forest scientists and their graduate students in the land-grant colleges, the agricultural experiment stations, and other State-supported colleges and universities which have forestry schools and offer graduate training in the sciences basic to forestry. This has accelerated the development of new knowledge and the supply of trained specialists for the forest industry.

Nature of Activities

The programs of Federal support for the State agricultural experiment stations and forestry institutions are administered through CSRS. The Hatch Act holds the Secretary of the U.S. Department of Agriculture responsible to Congress for proper use of Federal grants-in-aid to the States. He delegates this responsibility to CSRS.

The CSRS staff provides technical assistance for scientific workers in various research areas. Such assistance includes review of Federal-grant and State-supported research, analysis of work progress and results, and review of publications and reports. Publication and dissemination of research findings are essential parts of the experiment station program. Before a research project obtains Federal-grant support, it must be approved by both the experiment station directors or administrative-technical representatives for forestry schools and CSRS. Nearly 10,000 scientists are engaged in agricultural and forestry research on about 6,000 projects which require prior approval by CSRS for Federal fund support, and an equivalent number of projects supported by State and other funds. Information growing out of this system of cooperative scientific work has helped American agriculture reach its present high degree of efficiency. It has helped farmers provide better products at lower cost and Americans enjoy today's high standard of living.

CSRS also administers funds appropriated by Congress to assist the States in financing physical facilities essential to the effective conduct of adequate research programs at the experiment stations. Specific grants and contracts for basic and applied research are also awarded to experiment stations, colleges, universities, and other State-supported nonprofit institutions of higher learning in furtherance of USDA objectives.

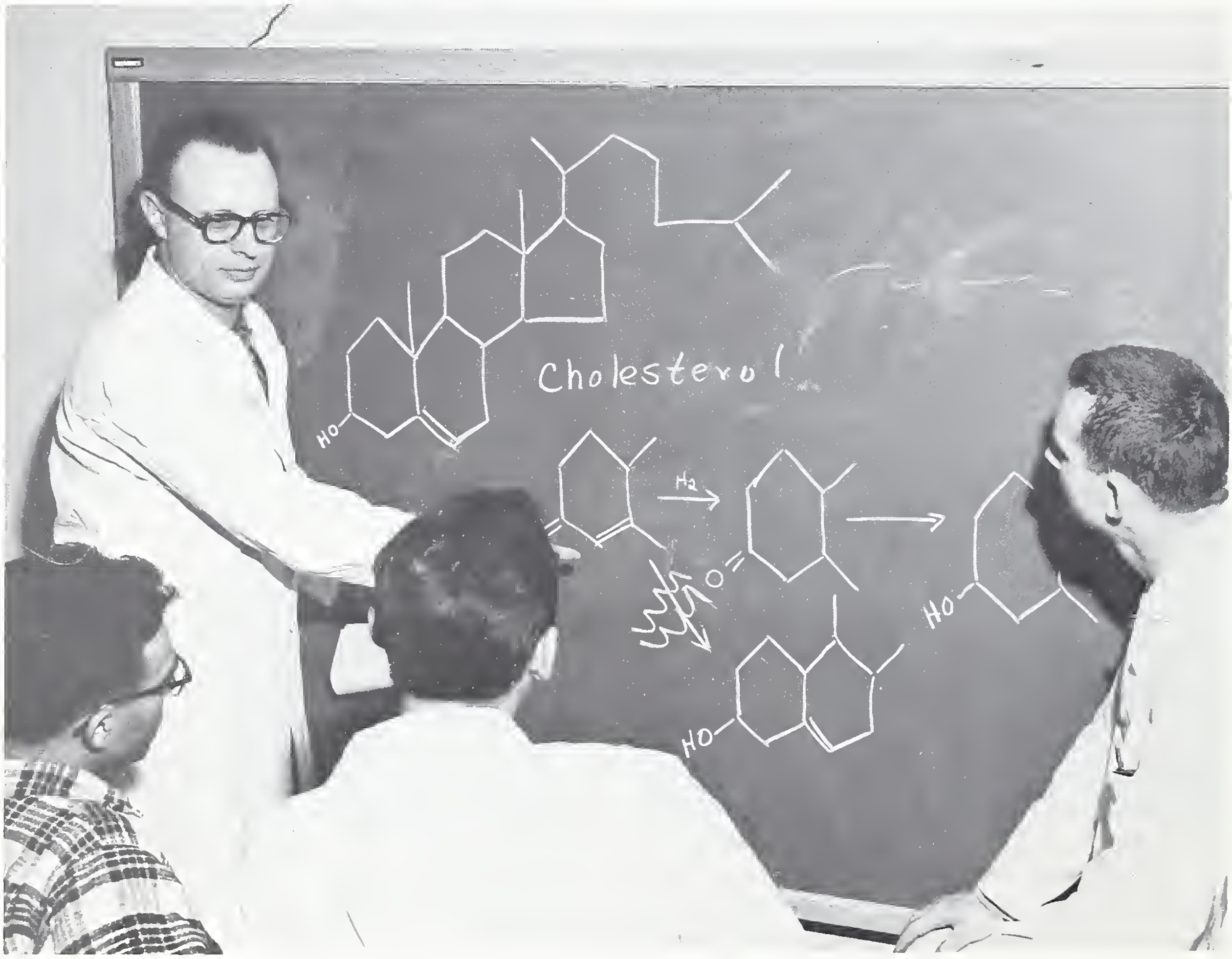
Formerly known as the Office of Experiment Stations, CSRS was established in the U.S. Department of Agriculture in 1888. As now organized, it has five major research programs: (1) Agricultural economics, marketing, rural and community development; (2) animal science; (3) plant science; (4) utilization; and (5) human nutrition and consumer use.

CSRS maintains a central file of all Federal-grant and State-supported research projects. Summary cards for all projects on record are duplicated and made available to each station so that scientists have readily available information on current projects. This catalogue of research information has recently been expanded to include the research projects of the other research agencies of the Department and is currently in the process of automation.

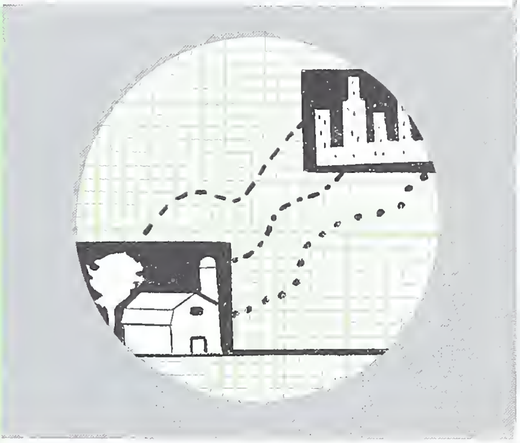
Employment Opportunities

The technical staff of CSRS is composed mainly of agricultural research people. Applicants for these positions generally have earned their doctorates in specific fields of agricultural science and have gained some experience in the administration of agricultural research. Recruitment for these positions is usually directed toward people engaged in research within USDA or the State experiment stations. For further information, please write:

Division of Personnel
Office of Management Services
U.S. Department of Agriculture
Washington, D.C. 20250



Economic Research Service



■ How efficient are American farmers? What will farms and rural areas look like in 10, 20, 30 years? How can food marketing costs be reduced? Why is two-thirds of the world's population underfed and what can we do about it? How adequate will the American diet be in 1980 in view of increasing population? What effect will changes in Government policy have on farmers, marketing firms, or the general economy?

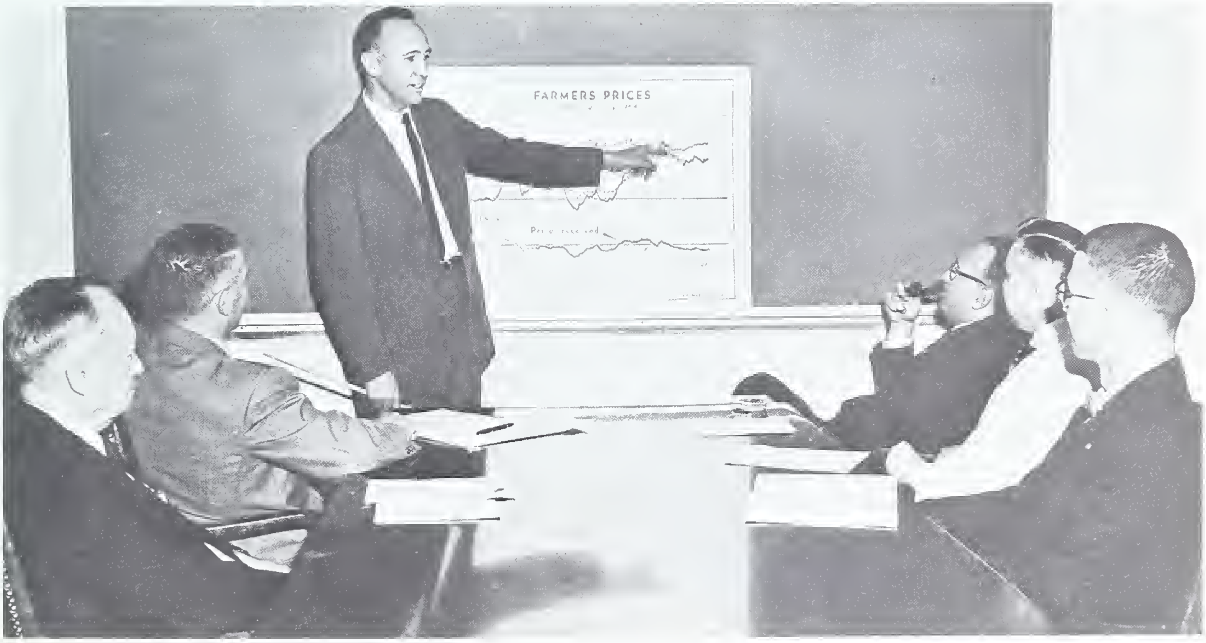
Finding the answers to these and many other vital questions is the work of the Economic Research Service.

Nature of Activities

Agricultural economic research has been conducted in the Department of Agriculture since 1905. ERS, established in 1961, carries out its research programs within seven divisions. It cooperates with other Government agencies, universities, and with private organizations in the collection of data, analyses of problems, and in training and assistance programs.

About 100 outlook and situation reports are published each year by ERS to meet the need for economic information about agricultural products, demand and price, farm income, and costs. These reports analyze the changing situation and appraise probable future developments.

In addition to keeping a sensitive finger on the economic pulse of agriculture, the Economic Re-



search Service has a research program broader than agriculture itself. About 400 research reports are published each year to present these findings to the public.

Much economic research is designed to study problems and develop answers to questions on new farm techniques, needed adjustments in production and marketing, new equipment, potentials for exports, and proposals for use and development of land and water.

Recognizing the importance of efficiency in marketing, ERS is conducting studies on many fronts (role of the consumer, bargaining power, market performance, impact of innovation and change). These are aimed toward reduction of costs and increased efficiency.

ERS studies the origin, extent, location, and nature of low-income conditions and evaluates the prospects for development of rural areas. Research areas of growing importance include rural economic development, economics of resource use, and the implications of resource policies for agricultural production and income.

Fundamental investigations of the agricultural situation in foreign countries and its effect on U.S. farm exports and the role of agriculture in the economic growth of developing countries are receiving increased emphasis. Research is directed toward better understanding of the complex of economic, social, and political factors that affect agricultural development in these countries and our trade with them.

Career Opportunities

Career opportunities are available in all areas of research for properly trained and qualified young people. There are opportunities for economists and agricultural economists, for statisticians and for other social scientists, including rural sociologists. Most of the jobs are in Washington, D.C.; others are in college locations throughout the country. Every effort is made to provide assignments at locations which will permit employees to pursue graduate study.

For additional information write:

Division of Personnel
Office of Management Services
U.S. Department of Agriculture
Washington, D.C. 20250

Farmer Cooperative Service

▪ The work of Farmer Cooperative Service touches the lives of five out of six U.S. farmers—those who are members of marketing, farm supply, and other rural cooperatives. FCS aims to help farmers and other rural Americans live better by using cooperatives as effectively as possible. It conducts research, advises directly with co-op leaders and others, and provides education materials to improve co-op operations and increase understanding of them.

Research

The foundation of FCS efforts is research—research covering organization, financing, management, accounting, merchandising, and membership relations. Recent FCS studies covered the fertilizer industry's market structure and cooperatives' role in it; results of co-op mergers, compared with stated objectives; and new opportunities for cooperatives to increase farmers' incomes.

Some of this research is useful to other businesses, too. One recent study showed how cooperatives and their members could have saved $5 million a year using more efficient grain moving equipment. Other grain handlers have used this study to increase their incomes.

Advisory Service

To be effective, research must be used. FCS staff members rely on their findings to advise cooperatives on consolidation, distribution, efficient marketing, and organization structure. This advice often results in cooperatives' improving their services to members and realizing substantial savings for them.

As a result of one recent study, two dairy cooperatives in western New York combined their packaging operations. The first year, though they packaged one-third more milk, they spent $300,000 less to package it. Other cooperatives proposed further consolidation, and an FCS study indicates savings of $1 million a year.

Education

FCS is also responsible for explaining sound cooperative principles and practices. It publishes reports of its research; issues its monthly magazine, *News for Farmer Cooperatives;* arranges workshops and conferences; and sends its staff to talk with co-op leaders across the country. Its publications flow to extension workers, teachers, students, farm organization leaders, co-op officials, and others interested in rural cooperatives.

Who Benefits?

FCS helps U.S. co-op members develop and operate sound, effective, marketing, purchasing, and service associations.

For example, a co-op that farmers own and control provides one of the best ways for them to gain bargaining power, to have greater influence over the prices they get for their crops and livestock. Hence, the co-op is an important way to improve farmers' incomes.

As the farmer benefits, so do others. His community is more prosperous. Consumers generally benefit from reduced production and marketing costs.

Besides helping U.S. co-ops, FCS also helps train 700 directors, managers, and employees of overseas co-ops each year. It sends skilled technicians overseas to help these co-ops.

What FCS Work Requires

A career in FCS is an opportunity to help rural people live better through cooperatives. It requires specialized knowledge of cooperatives, marketing various farm products, production and distribution of farm supplies, and group organization and control.

FCS staff members carry on research in cooperative management, accounting, financing, and member relations, and they relate these to specific commodities or farm supplies—milk, feed, petroleum, livestock, and the like. All these studies require considerable knowledge of business administration and modern management for effective business enterprises.

A career in FCS thus requires more than one specialty. For example, a good livestock background needs to be coupled with a sound understanding of cooperatives. This enables the FCS specialists to be more effective in advising livestock associations on more efficient operating methods.

Advisory studies require still other attributes—abilities to develop alternative plans of action, to present these alternatives to directors of rural cooperatives, to establish credibility.

FCS thus requires well-rounded, adaptable individuals, persons with a background of rural economics and research, and persons with the ability to communicate effectively.

Job Opportunities

The staff of FCS includes agricultural economists, educators, organizers, rural sociologists, all in Washington, D.C. The top staff travels to maintain effective contacts with cooperatives, land-grant universities, extension services, experiment stations, farm organizations, and others.

FCS has excellent opportunities for advancement for those who show aptitude and ability on the job. For additional information about career opportunities in FCS, write or visit:

Division of Personnel
Office of Management Services
U.S. Department of Agriculture
Washington, D.C. 20250

UNITED STATES DEPARTMENT OF AGRICULTURE

Farmers Home Administration

■ Concern, action, and accomplishment in the war against decline of rural community life are objectives of the U.S. Department of Agriculture. To achieve these goals, FHA provides loans and professional agricultural and general management assistance to rural people.

Since the program began in the mid-1930's rural people have borrowed about $9.4 billion. Principal and interest repayments to date total about $7 billion. Under new legislation, FHA is expanding its programs to fill the need for broader services to rural people. Tested programs are being extended and new programs are being developed to help rural America remain a land of social and economic opportunities.

Nature of Activities

Through loans and technical assistance in farm and money management, FHA helps farmers obtain the resources they need for successful farming. FHA makes loans to help nonfarm families in rural areas and small towns secure better housing, adequate water supplies, waste disposal systems, recreational facilities, and other improvements. FHA also performs field outreach responsibilities in working with community leaders to insure that rural people receive full benefits of all Federal programs to which they are entitled.

In addition, FHA helps applicants ineligible for loans to determine their credit needs, work out debt repayment schedules, and solve other financial management problems.

FHA's credit program differs from most others. Its services supplement but do not compete with those provided by other lenders. Also, individually tailored farm and financial management assistance accompanies each loan.

More than 1,600 county offices serve the 50 States and Puerto Rico. Each office is in the charge of a county supervisor who is a specialist in agricultural management and community development.

The county supervisory staffs extend credit and supervision to assist rural families to develop profitable farming operations, improve rural housing, provide rural community facilities, and develop supplementary sources of income, particularly among the low-income rural people. The county FHA supervisors also serve as chairmen of technical action panels (TAP) composed of representatives of USDA agencies in the area, as well as other agencies engaged in education, health, welfare, and housing. These committees work with other locally organized groups to make rural areas more attractive places in which to live.

Kinds of Loans Made

During the past fiscal year, the Farmers Home Administration loaned farm families, rural residents and groups more than $1.4 billion. Approximately 22 percent of the total loaned was for farm operating credit; 19 percent for the purchase, development, or enlargement of family farms; 32 percent for construction or improvement of rural housing; and 20 percent for various community facilities. More than 3 million rural people are using credit supplied by the Farmers Home Administration.

Types of Jobs

Opportunities for stimulating, satisfying work are available in agricultural management supervisory work. Although fewer in number, attractive opportunities also exist for agricultural and civil engineers, accountants, and home economists. In addition, clerk-typists, clerk-stenographers, and administrative personnel are needed.

Advancement and Training

New employees are provided opportunities for advancement, based upon demonstrated ability and willingness to accept additional responsibilities. Comprehensive on-the-job training is given each new employee to insure rapid development to a high level of competence.

Working Conditions

Work is at county, State, and national levels. At the county level there is daily contact with rural people and business establishments. Employees generally use their own automobiles, for which reimbursement is made.

Certain positions at the State and national office levels require travel, as needed, to administer the FHA programs. Employees are reimbursed for travel expenses.

Contract:

Director, Personnel Division
Farmers Home Administration
U.S. Department of Agriculture
Washington, D.C. 20250

Federal Crop Insurance Corporation

▪ The need for insurance protection for crops goes back to the first man who planted a crop and then saw his work destroyed by the weather or insects or plant disease. In 1788, Benjamin Franklin wrote: "I have sometimes thought that it might be well to establish an office of insurance for farms against the damage that may occur from storms, blight, insects, etc. A small sum paid by a number would repair such losses and prevent much poverty and distress."

In 1938, the Federal Crop Insurance Corporation (FCIC) was established by an Act of Congress as a wholly Government-owned corporation. The inability of private insurance companies to provide all-risk coverage and the severe droughts of the 1930's made it apparent that only the Federal government had the financial resources to operate a successful all-risk crop insurance program.

Because most farm income is derived from the sale of crops, FCIC payments in bad years are often the only cash available to farmers. It follows that when farm income is drastically reduced by crop destruction or damage, the entire national economy suffers. By helping to soften the economic blows which affect not only farmers but every segment of the economy, FCIC serves not only agriculture but also the entire Nation.

Nature of Activities

The Federal Crop Insurance program provides a business-like way for farmers to protect their investment in crops. It is based on sound business principles, and requires farmers to pay premiums for the protection against loss from plant disease, insects, wildlife, fire, and weather conditions.

The Corporation insures 25 specified crops, including certain fibers, grains, fruits, and vegetables. The Corporation's program is conducted in more than 1,400 counties in 39 States. The Corporation's national service office in Kansas City, Mo., has an automatic data processing program and the accounting and billing operations are conducted by this office. There are four area offices, each having responsibility for the program in approximately one-fourth of the States. There are 24 State offices having jurisdiction over one or more States, approximately 400 county offices and the staff office in Washington, D.C. The Corporation has more than 2,400 full-time and intermittent employees.

Sales and Public Relations

Crop insurance is similar to commercial insurance in that it must be sold to the farmer.

Public relations contacts are made with newspapers, radio and television stations, and other media, and with farm and civic organizations. The Corporation has a few positions which specialize in sales promotion and training.

Program Research and Development

The Corporation conducts research to develop insurance programs for new crops and to expand present programs to other areas. Crop insurance is not available in all counties nor on all crops.

Rates and Coverages

The insurance premium rates and coverages are developed in the Corporation and are based on statistical experience data. These data include history on the crops to be insured. They indicate losses from bad weather and other catastrophes, and past crop yields.

Loss Adjustment

Inspections of damaged crops are conducted throughout the growing season as provided in the insurance policy or contract. After harvest, the actual adjustment of losses is performed. This determines whether the loss occurred from a cause covered by the policy or from some uninsured causes, such as poor farming practices. Adjusters measure acreage, appraise unharvested crops left in the field, establish the amount of harvested production and appraise the production lost from uninsured causes. They must explore all sources to determine the total crop production before loss adjustment can be completed.

Career Opportunities

The Corporation offers positions for fieldmen and supervisors in grades GS–5, GS–7 and GS–9. There is a career ladder for promotion to various staff positions in Washington, D.C., in grades GS–11 to GS–15. Other positions in the Corporation, ranging in grade from GS–7 through GS–15, include insurance analysts, sales trainers, writers and editors, research and program specialists, loss adjustment and sales management specialists, and computer programers. Most of the positions are located in towns and rural areas in the States in which Crop Insurance is offered. The duties of the majority of the positions are performed out-of-doors.

Where and How to Apply

Applicants may qualify for career positions in the field offices of the Corporation by receiving an eligible rating in an examination for Crop Insurance Fieldman, GS–5, and Crop Insurance Supervisor, GS–7 and 9. The examination is offered in 38 States by the Interagency Board of Civil Service Examiners, 1900 E Street, NW., Washington, D.C. 20415. Applicants may also qualify for other positions in the Corporation by means of the U.S. Civil Service Commission's Federal Service Entrance Examination. Applicants may also receive appointments by transfer from other Federal agencies or by reinstatement.

Training

Appointees are given training in the appropriate Crop Insurance program fields. Intensive training programs are conducted by the Corporation to train fieldmen in selling techniques, in the contract provisions, and in loss adjustment functions.

Federal Extension Service

■ *Cooperative Extension—The "Educational Arm."* "What a man hears, he may doubt; what he sees, he may possibly doubt; but what he does himself, he cannot doubt."

Seaman A. Knapp, agricultural leader and teacher, discovered this basic idea early in the century, when the Secretary of Agriculture assigned him to help Texas farmers battle the Mexican boll weevil. He devised the self-help demonstration as a key technique in getting farmers to accept and use scientific research.

His method laid the foundation for the Cooperative Extension Service, now grown into the largest out-of-school educational system in the world.

Today, some 15,000 professional extension workers pursue interesting, rewarding careers based on this native American idea. About 11,000 of these jobs are located in counties throughout the Nation.

How Extension Operates

The Cooperative Extension Service is a partnership. Three levels of government—Federal, State, and local—share in financing, planning, and carrying out extension educational programs. Extension acts as the "educational arm" of the U.S. Department of Agriculture and the land-grant universities. Here is a vast facility for diffusing knowledge among people who can use it.

The Federal partner, the Federal Extension Service, employs a relatively small staff of technical specialists—usually experienced men and women who have formerly worked in the States—who assist State workers in an advisory and training capacity. They work with many agencies, both in and out of the Department of Agriculture.

The land-grant college or university, the State partner, has a staff of professionally trained specialists in agriculture, home economics, and youth work. Its State Extension Service, cooperating with county governments, employs the county farm, home, and 4–H agents.

These "professors in the field" help extend the campus boundaries and the resources of the Department of Agriculture to the far corners of every State. They relay information from laboratory and classroom directly to the people. And they also channel the problems of people to the scientists who can help solve them.

International Extension Programs include development of educational programs of study and training in Cooperative Extension work. Federal, State, and county workers assist foreign nationals, including ministers and other high officials of different departments of foreign governments, top provincial Department of Agriculture directors and officials, college administrators and instructors, extension technicians, and national and provincial farm organization leaders.

Who Benefits

Extension's "students" have traditionally been the people of rural America. Instead of meeting formally in classrooms, they have gathered in community halls, farm kitchens, even in open fields, to learn through lecture-demonstrations.

At first, county agents taught only farming and homemaking skills. Later, they began to emphasize the overall management and development of the farm and household.

Today, extension agents need to know how to help people develop community, regional, and industry-wide programs for total community resource development.

County and home agents need to know more about the economic and social problems of city dwellers, as well as farmers. There is no longer a dividing line between "city" interests and "farm" interests.

They use television, radio, and newspapers to reach larger audiences with information. In some States the agents conduct educational programs in public affairs to examine current questions.

Suburbanites today ask their county agricultural agent about lawns and landscaping. Home economics subjects have expanded to offer homemakers instruction on wise consumer buying, family relations, and health and safety. Communities turn to the extension agent for guidance on the problems of low-income families and the elderly citizen.

Most boys and girls living on farms today will have to find careers outside of farming. Training in 4–H work helps them prepare for that future.

A Rewarding Job

Because Extension work is based on local needs, no county agent's job is quite like another's—it is as individual, as varied, as the land or the city where he works. The challenges are exciting to the imaginative men and women who meet them daily.

With its half century of experience in helping people organize for group action, Extension is well suited to accelerate the nationwide process of economic development and social improvement. Seaman Knapp's philosophy of "helping people help themselves" still works.

Employment Opportunities

Approximately 1,000 to 1,500 County and State Agricultural Extension positions are filled each year. Recent college graduates are usually employed in a county as an assistant agent. Assistant agents may do general work or they may specialize in an area such as 4–H Club work, livestock, farm or home management, or rural areas development. The county is the key unit of the Extension Service and many agents remain in county positions by choice. Career opportunities are available as District supervisors, subject-matter specialists or administrative type positions depending on an individual's interests and talents.

For further information about State and county positions, write to the Director, Cooperative Extension Service at the Land-Grant College or University of the State in which you desire to work.

At the Federal level, agricultural extension specialists provide leadership in the work of the Federal Extension Program through the fields of program leadership, educational research and training, subject-matter specialization, and educational media. They also assist State extension directors, supervisors, and program leaders in planning, developing, and coordinating national, regional, and State extension programs.

The fields just mentioned have positions at the GS–12 through 15 levels; professional experience is required to qualify for these jobs. In addition to the basic requirements, 3 years of professional experience is required for the GS–12 positions. However, graduate study may be substituted for up to 2 years of experience.

For additional information about the Federal Extension Service and the career opportunities it offers, contact:

Personnel Development and Management Division
Federal Extension Service
U.S. Department of Agriculture
Washington, D.C. 20250

Foreign Agricultural Service

The Foreign Agricultural Service (FAS) as a world-wide agency of the U.S. Department of Agriculture is responsible for planning and representing America's agricultural programs abroad.

During the past few decades, the international aspects of U.S. agriculture have changed in nature and increased in scope and complexity. Developments in foreign agricultural production and trade vitally affect farmers, agricultural trade groups, and the economy of this country. To do its job, FAS must have accurate information about the agricultural economy and agricultural trade of all nations, so that USDA can play its part toward a peaceful world of plenty.

Nature of Activities

The functions of FAS cover several broad areas relating to U.S. foreign trade maintenance and expansion.

Maintaining and Expanding Agricultural Exports

Increasing exports to dollar markets is a primary job of FAS. In some cases, access to these foreign markets can be gained by removal or lowering of trade barriers. In other cases, other techniques will be needed. FAS provides information and data on foreign agricultural market and trade situations, developments, and trends which help to keep U.S. commodities competitive in the world market. In more than 50 countries, FAS cooperates with the many U.S. and foreign trade and agricultural organizations in market development projects.

Global Agricultural Intelligence

FAS operates the world's most comprehensive agricultural intelligence system. This reporting and analysis network provides a constant flow of facts on world agricultural production, trade and consumption of farm commodities, and related information which affects U.S. agriculture. This intelligence consists of on-the-spot reports from agricultural attaches and officers at various posts around the world, analysis of these field reports by commodity experts and economists in Washington, and distribution of this information to all who have an interest in foreign agricultural trade.

Food-for-Freedom Program

FAS plays a major role in the U.S. Food-for-Freedom Program. Not only does this program support U.S. foreign policy by helping friendly peoples in developing countries, but it also aids the economic growth of such countries. This, in turn, strengthens the demand for U.S. farm products. Sales for foreign currencies are an important aspect of special government programs under which Food-for-Freedom is exported. In addition, short-term and long-term dollar credit is granted to facilitate export sales where the private exporters and importers are in need of working capital. This helps to assure importing countries of continuing supplies in periods of expanding economic development.

International Trade Policy and Agreements

FAS analyzes and appraises foreign trade policy affecting exports of U.S. agricultural commodities and works closely with other agencies in the establishment of U.S. foreign agricultural trade policy.

It has responsibility for proper U.S. agricultural representation in trade barrier negotiations with foreign countries.

Scope of Activities

With the world as its territory, FAS represents the U.S. Department of Agriculture at 61 overseas posts, covering over 100 foreign countries. This far-reaching and complex program is operated with about 900 employees, of whom 600 are in Washington and 300 are overseas.

Employment Opportunities

In carrying out its activities, FAS has need for graduate and undergraduate students who majored in agricultural economics and agricultural marketing. This need includes both undergraduate students hired for summer employment and junior professionals who are beginning their careers after the completion of their college work. These employees may work toward careers in international market development, economic analysis, overseas representation, and related activities. For the overseas posts a supporting staff of secretary-stenographers is needed. They are primarily selected from the Washington staff for assignments as vacancies arise.

Student Program

In the Student Program, undergraduate and graduate students are sought for the summer months. The need is limited to those who have completed at least 2 years of college and intend to continue with a major in agricultural economics. Undergraduates may be appointed at the GS–4 level, but must compete in a Summer Student Examination administered by the Civil Service Commission. Graduate students are appointed at Grades GS–5 and above, depending on the amount of education.

Junior Professional Development

Under this program young people are hired who will complete all requirements for a degree. These people are selected from eligibles in the Federal Service Entrance Examination and are appointed at grades GS–5 or GS–7, depending on the grade for which they are eligible on the Civil Service Register. Select graduate students with master's and doctor's degrees in agricultural economics and agricultural marketing are recruited. These students must have qualified in the economist or the Mid-Level position examination. Recruitment from these examinations is generally at the GS–9 to GS–11 levels.

Secretaries and Stenographers

In order to qualify for the position of secretary or stenographer, GS–4, the applicant must have Civil Service status and 1 year of experience in the secretarial field or eligibility in a clerk-stenographer examination.

Advancement and Training

Opportunities for advancement and training are exceptionally good. The service is able to provide for individual supervision of employees, for thoughtful orientation to job requirements, and for careful follow up and evaluation of job performance. FAS strives to help employees achieve their highest potential and to develop them for assignments of greater responsibility. As young professionals, new employees are placed in trainee positions in the Washington office and given the opportunity to develop along the lines of their greatest capability. The Junior Professional Development Program provides for the broad economic orientation of the agency, its problems, objectives, organization, programs, public relations, and intergovernmental relationships. Under the guidance of senior staff members, junior professionals receive intensive training in economic analysis work in a variety of program areas.

Undergraduate and graduate students majoring in Agricultural Economics will be interested in the Student Program which offers them an unusual opportunity to participate in an intern-type program in their field of work. FAS provides college students with the same broad orientation as that given to members of the Junior Professional Development Program. The summer assignments are tailored to the career interests of the student.

Overseas a secretary may serve as principal secretary to the agricultural attache; therefore, it is important that secretaries become familiar with program objectives of the Service and with Federal Government procedures. This is achieved through orientation and on-the-job training in Washington, D.C., prior to assignment to a duty post abroad.

It is hoped that you now have an idea of the opportunities for service in world agriculture and that you may want to learn more about an interesting and challenging career in the Foreign Agricultural Service. If you desire more information on FAS and how to become a part of it, write to:

Director, Personnel Division
Foreign Agricultural Service
U.S. Department of Agriculture
Washington, D.C. 20250

UNITED STATES DEPARTMENT OF AGRICULTURE

Forest Service

■ At the turn of the century a young man from Pennsylvania dedicated himself to the idea that America's natural resources belonged to all the people, and that they could not be expected to produce their many benefits continuously unless they were taken care of. This man was Gifford Pinchot, and he had among his allies President Theodore Roosevelt. As a result of the efforts of such men, the Forest Service was established in 1905.

Nature of Activities

Today, the Department of Agriculture's Forest Service is responsible for the development and management of 186 million acres of National Forests and National Grasslands, located in 41 States and Puerto Rico. The Forest Service improves them; protects them from fire, insects, and disease; and manages their multiple resources for orderly and continuous service.

Two basic policies apply in the management of the National Forests and National Grasslands: multiple use and sustained yield. Multiple use means the utilization of the forest resources to meet best the long range needs of the American people. In accomplishing this, the National Forests must be made to yield continuous supplies of water, timber, forage, and wildlife, as well as to provide recreation opportunities for the millions of people who visit them.

Managing these lands by the multiple use—sustained yield policy is only one of the Forest Service's four major responsibilities. To provide the basic facts needed to carry on their programs and to develop new methods to facilitate them, the Forest Service carries on extensive forest and range resource research in many fields. Cooperative activities with the States and private forest landowners are also carried on to exchange knowledge and provide support in the protection and management of forest lands. Only recently has the emerging field of international forestry made it possible to carry on this cooperation on a global basis.

Career Opportunities

In 1905, 734 employees administered 54 million acres on 60 forest reserves, as they were then called. Today some 22,000 full-time employees are aided by approximately 22,000 part-time and seasonal employees in carrying out the organization's public services. To manage and administer such a widespread and diverse operation requires an equally wide distribution of different kinds of jobs. The Forest Service hires employees in more than 200 distinct classes of positions, from range conservationist to computer programer.

Some 6,000 foresters help to carry out the Service's primary responsibilities. About two-thirds of them work on the National Forests, which include some 810 Ranger Districts. Other foresters work on administrative or research duties at regional offices, laboratories, and other facilities of the more than 100 installations across the country.

Backing up the forester are more than 14,000 scientific, professional, administrative, technical, and clerical personnel. Bacteriologists, forest product technologists, research foresters, entomologists, plant pathologists, and men and women representing many other scientific disciplines conduct research into the diverse problems involved in forest management, wood products, diseases, and insect control. One thousand professional engineers (mechanical, highway, and civil) plan, design, and supervise projects that contribute heavily to the fuller use and enjoyment of the Nation's forests. Landscape architects design and develop large recreation areas. Business administration personnel play a vital role in regional and national financial and manpower planning, policymaking, and the handling of fiscal operations.

These are a few of the positions within the Forest Service. Each one is designed to operate toward the primary goal of providing the best of national and international leadership in the conservation and utilization of forest resources.

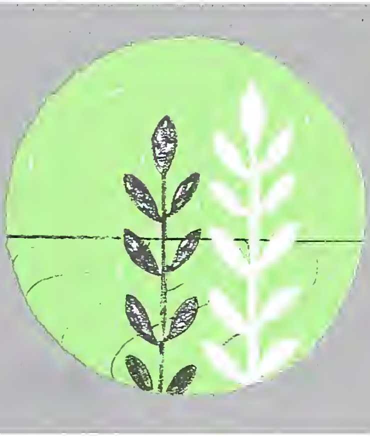
Career direction and comprehensive training programs help the employees in accomplishing these goals. These programs are tailored to the individual's needs and are available to most employees. They are designed not only to help employees in the performance of present duties but also to prepare them for more difficult and responsible jobs. Applicants selected generally enter at grade GS–5 or GS–7 depending on their qualifications and experience. After a year of satisfactory work, employees are eligible for promotion consideration. After the initial training period, assignments are usually made to operating positions. Promotion to the higher levels are made on the basis of ability and potential. Most job specializations provide career ladders through grade GS–15.

The future looks good in the Forest Service. Plans call for rapidly increased activity on many fronts, including needs for research and recreational facilities. And this means satisfying personnel development with challenges and advancement.

Since this work is carried on in many States and Puerto Rico, the local environments in which the people work are diverse and stimulating. Working relations, both inside and outside the Service, are as diverse as the environments and equally interesting, since they represent dealings with people from all walks of life. In large part, the pleasure and the satisfaction in working for the Forest Service stem from a pride in the agency's spirit of public service, its record of past accomplishment, and a strong belief in its future goals. All of these are intangible, but they are invaluable assets to any job. In employing new people, the Forest Service seeks to obtain men and women who are not only properly trained for the work, but who also have high ideals and a desire to serve the public.

UNITED STATES DEPARTMENT OF AGRICULTURE

International Agricultural Development Service



■ "What we need today is more young leadership in the War against Hunger. We must blend the wisdom of our experienced scientists and businessmen with the dynamic enthusiasm and insight of our young people.

The United States has more than 100,000 professional agricultural specialists—in the USDA, in the agricultural colleges, in industry. Yet, only about 1 percent of these are working overseas on the world food crisis. We must have more of our farming experts devoting their efforts to helping the world's farmers increase food production."

Orville L. Freeman,
Secretary of Agriculture.

Nature of Activities

The United States, as a part of its foreign policy and as a leader of the free world, helps less developed nations strengthen their economies and improve their agriculture. Agricultural improvement is a key prerequisite to overall economic growth. Recognizing the importance of solving rural problems, the Department of Agriculture is continually increasing the supply of technical aid to U.S. and international agencies.

To provide a focal point for all requests that come to the Department and to respond more effectively, the Secretary of Agriculture, in 1963, established the International Agricultural Development Service (IADS). IADS coordinates the Department's total international technical assistance and training work and maintains liaison with the Agency for International Development (AID), land-grant institutions, foundations, and other agencies participating in the War on Hunger. In addition, IADS is responsible for coordinating USDA's international nutrition improvement, evaluating self-help efforts of the less developed countries, and interesting American businessmen in world agricultural improvement.

A Comprehensive Approach to Technical Assistance

Requests for assistance receive careful analysis by IADS and other USDA agencies concerned. Often a team of USDA, land-grant colleges, and AID specialists goes to a country, at its request, to study that country's agricultural potential. The team identifies needs for agricultural development. Guided by their observations and recommendations, IADS evaluates the type of help needed and then assists USDA agencies in recruiting agricultural specialists. The specialists form a USDA agricultural development team which works in the developing country under AID auspices. USDA keeps in touch with its men in the less developed countries, giving them counsel and advice and, if necessary, sending them short-term advisors. In this way professional men can be quickly and efficiently assigned abroad. This has the further advantage of putting the full resources of the USDA behind each advisor working in a less developed country.

Training People from Other Countries

Each year nearly 4,000 technicians, scientists, and leaders from other countries come to the United States for training in agriculture. These people are from different parts of the world—Africa, Latin America, and Asia. Equipping them with new agricultural skills and knowledge is a major part of the U.S. Department of Agriculture's technical assistance to developing nations.

These individuals are, or will become, key officials having strategic roles in the development of their countries. Among them are researchers, educators, administrators, food technologists, extension leaders, youth workers, editors, home economists, and village workers. About half of these participants are sent for training by the Agency for International Development. Most others are sponsored by private foundations, the United Nations, and other governments.

Many participants attend special short courses arranged and carried out by land-grant universities and the Department of Agriculture, or training sessions conducted by U.S. business.

Training for each participant is coordinated and guided by IADS's Foreign Training Division.

Scope of Activities

USDA's international development programs range around the world, with specialists in some 40 countries. IADS itself has fewer than 100 employees, who coordinate the Department's overall international development work; IADS hires few people directly.

USDA technicians who work on international development programs are mostly employed by the various USDA agencies. Even though they go overseas, the specialists remain employees of their agency. Their place of work changes, but not their status. For example, a Soil Conservation Service technician may work this year in Indiana; for the next 2 years he may work in Brazil, under an IADS project. Then, he returns to the United States to continue his career at home.

Career Opportunities

In the early 1960's, only a handful of USDA employees were working directly to solve the world food problem. Today, some 300 are overseas, and many more work in Washington on training and technical and administrative support.

A USDA man may organize farmer's cooperatives in Nepal, conduct soil surveys in Brazil, help stabilize farmer's prices in India, or conduct insect research in Africa. Or, he may work in Washington setting up training programs throughout the United States for visiting agricultural officials from a less developed country. Or, he may analyze a less developed country's progress in agriculture, combining work in the United States and in the country under study.

Generally, a degree in agriculture is preferred; senior positions go to those with advanced degrees and considerable experience in their field. Also, training in international affairs, general economics, or international business are useful for certain positions. Previous background in world agriculture may not be all-important. Also necessary are the desire to do a good job, training and experience in a specific field, and flexibility to recognize and deal with new problems and people.

Although proficiency in foreign language is often necessary, this training can be arranged after employment.

Normal tour of duty overseas is 2 years, after which the employee may continue doing international work, or he may take a position in the United States, still with USDA.

Junior Professional Development

Junior professionals in international work may be B.S., M.S., or Ph. D. degree holders, with emphasis on social sciences as well as agricultural disciplines. There is a whole new world of jobs in international agriculture—jobs which need experienced, dedicated people. Whether your specialty be research, extension, credit, management, economics, sociology, or almost any other field of agriculture, there may be an exciting opportunity for you.

For more information, write to the agencies listed in this publication, indicating your interest in international agricultural development; or write directly to the International Agricultural Development Service, U.S. Department of Agriculture, Washington, D.C. 20250.

National Agricultural Library

■ What has a library to do with farming, ranching, business, industry, conservation, and scientific research? If it is the National Agricultural Library, the answer is a great deal. Being part of the Department of Agriculture, the Library serves the needs of employees whose research projects are as extensive as the term agriculture is broad. And the agricultural librarian supports and services all of these varied functions of the agricultural network by bringing together the recorded knowledge in the specific field and the people to whom it is essential.

Nature of Activities

From an initial collection of 1,000 volumes transferred from the Patent Office in 1862, the collection now exceeds 1¼ million volumes. Next to the Library of Congress, the National Agricultural Library is the largest Government library. Acquisitions in agriculture and the related sciences come by purchase, gift, and exchange. The exchange program is especially active, accounting for three-fourths of the collection. It is not uncommon to receive in a day publications in more than 50 different languages from over 200 countries. All of these acquisitions are responsible for the miles of bookstacks that hold the largest collection of agricultural publications in the world.

The scope of the collection is determined by the needs of the Department. Most of the holdings are highly technical and scientific. They include all phases of agriculture and related sciences—botany, chemistry, animal industry, veterinary medicine, biology, agricultural engineering, rural sociology, forestry, entomology, law, food and nutrition, soils and fertilizers, and also the marketing, transportation, and other economic aspects of agricultural products. The *Dictionary Catalog of the National Agricultural Library, 1862–1965*, containing the entire card catalog of the library in book form, and the monthly *National Agricultural Library Catalog*, listing all books and serials added to the collection during the previous month, combine to make information on these vast resources available to the entire research community.

The library also disseminates information through its *Bibliography of Agriculture*, the *Pesticides Documentation Bulletin*, and other special bibliographies and through loans, photocopies, and reference services to agricultural colleges and universities, research institutions, Government agencies, agricultural associations, industry, and the general public.

The library is well known for continued progress in scientific management. Notable is the extensive use of photocopying, illustrated by the invention of equipment which allows photocopying in a continuous strip. This practice has resulted in reduced costs in supplying researchers with information. The library, especially in the field of mechanization, is constantly improving its techniques and management to render the resources of the collection more readily available to Department workers. Among its current efforts is a study to develop an integrated, automated library system using high-speed computers.

Living in the Nation's Capital

Newcomers to Washington may sightsee in the many famous art galleries, museums, and points of national interest. More established residents find other enlightening and entertaining activities, many of them easy on the budget.

Theater enthusiasts enjoy productions of the Arena Stage, the National Theater, and drama groups of the local universities. In the summer open-air drama and comedy at the Sylvan Theater, the Carter Barron Amphitheater, and the Watergate offer evenings of distinctive entertainment. As host to delegates from all over the world, Washington has inherited gourmet tastes for exotic dishes served in the most varied and stimulating atmospheres.

And bookdealers—whether behind quaint Georgetown facades or sophisticated exteriors—offer subjects as varying as the interests in the Nation's Capital.

Career Opportunities

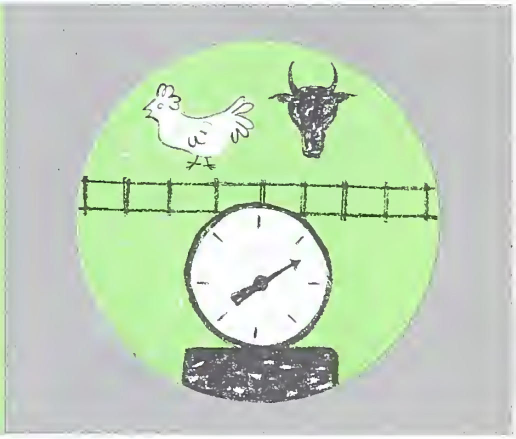
Although the number of opportunities varies, the majority of agricultural librarian positions—acquisitions, bibliography, cataloging, lending, reference, law, and administrative—are at the main library in Beltsville, Md. Some positions exist at the agency field libraries throughout the United States.

Under the Career Service Program of the Library, well-qualified librarians have excellent opportunities for advancement to higher grades.

For information about job openings, write:
Division of Personnel
Office of Management Services
U.S. Department of Agriculture
Washington, D.C. 20250

UNITED STATES DEPARTMENT OF AGRICULTURE

Packers and Stockyards Administration



▪ The Packers and Stockyards Act of 1921 is one of the oldest and broadest regulatory laws administered by USDA. Its purpose is to assure fair competition and business practices in the marketing of livestock, meat, and poultry—all the way from the farm to the retail store.

Effective enforcement of this law is important to farmers, who receive more than a third of all their cash income from the marketing of livestock and poultry and to consumers, who spend more than 30 percent of their food budgets for meat and poultry.

Nature of Activities

The agency within the Department charged with carrying out the provisions of the law is the Packers and Stockyards Administration.

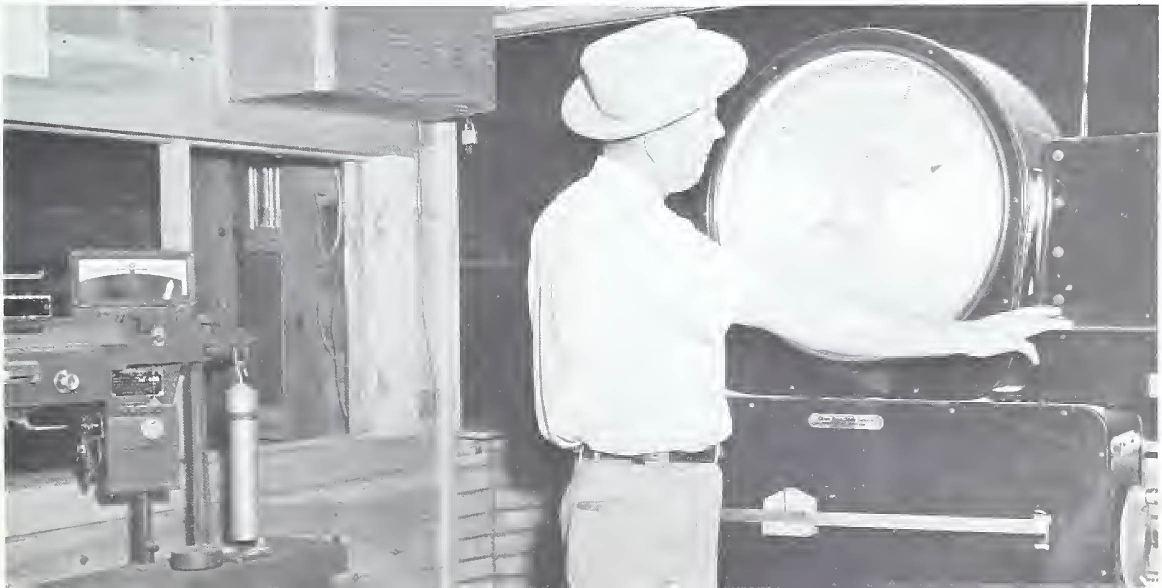
The Administration maintains area offices, each of which is charged with administering the law in a specified area of the country.

The area offices are located in:

Atlanta, Ga.
Chicago, Ill.
Denver, Colo.
Ft. Worth, Tex.
Huntington Park, Calif.
Indianapolis, Ind.
National Stockyards, Ill.
Kansas City, Mo.
Memphis, Tenn.
Newark, N.J.
North Portland, Oreg.
Omaha, Nebr.
South St. Paul, Minn.
Sioux City, Iowa
Washington, D.C. (field office)

Major objectives of the Packers and Stockyards Act are these:

1. To safeguard producers against receiving less than the true market value of their livestock and poultry, and to protect them from unreasonable and discriminatory rates and charges and inadequate services and facilities at public markets;
2. To protect consumers against the unfair busi-



ness practices in the marketing of meats and poultry; and

3. To protect those in the livestock and poultry marketing and meat industries from unfair, deceptive, unjustly discriminatory, and monopolistic practices of competitors.

Since the Packers and Stockyards Act is essentially a fair trade practice law, administering it involves a continuing review of what is fair in the marketing of livestock, meat, and poultry. This requires constant study and evaluation of changes in marketing structure, operation, and performance—for example, concentration of buying power, vertical integration (for example, raising or feeding of livestock by meat packers), new methods of procuring products, merchandising, and pricing.

Specialists in the Packers and Stockyards Administration constantly analyze such practices and evaluate their economic effects upon competitive conditions in the livestock, poultry, and meat industries to determine if any violate the Packers and Stockyards Act.

These specialists also meet regularly with representative industry groups so that both may keep informed on new marketing practices and trends and discuss what revisions in Packers and Stockyards regulations may be needed to keep abreast with current conditions.

Enforcing the Packers and Stockyards Act also requires the Packers and Stockyards Administration to survey operation of stockyards, auction markets, market agencies, dealers, and meat packers; to make visits to these places of business and audit their accounts to make sure that they are in sound financial condition and are employing fair business practices under free and open competition.

To assure accurate weights on correct scales, the Administration also prescribes procedures for the testing, maintenance, and operation of all scales used by those subject to regulation under the Packers and Stockyards Act.

To stop a violation of the Packers and Stockyards Act, the Department of Agriculture may issue a formal cease and desist order. Violations of these orders, as well as criminal violations of the act involving fraud, such as false weighing, are turned over to the Justice Department for prosecution.

In other instances, violators may be suspended as registrants under the act, thus barring them from conducting business for the period of suspension.

Employment Opportunities

The Administration has career opportunities for accountants and auditors, agricultural marketing specialists, economists, engineers, and scales and weighing specialists.

For additional information about Packers and Stockyards Administration and the career opportunities it offers write:

Division of Personnel
Office of Management Services
U.S. Department of Agriculture
Washington, D.C. 20250

Rural Community Development Service

■ Great opportunities and great challenges face the 60 million Americans living in rural America. Our farmers who now number less than 6 percent of the total population have compiled an unmatched record of productivity. Each farm worker today supplies the food and fiber needs of 40 persons compared with only 10 just three decades ago. Further gains in productivity will occur as our farmers continue to apply the lessons of science and technology to their farms.

But rural America is far from realizing its full potential. It continues to have many underdeveloped natural, human, economic, and social resources. Although containing less than a third of the Nation's population, rural America has nearly 45 percent of the Nation's families with average incomes of less than $2,500 a year. Rural America needs more industry, and better education, housing, and health services. Rural Americans deserve the same opportunities open to people who live in cities.

In recognition of this, the President has asked the Department of Agriculture to utilize the USDA field offices in helping other Federal agencies make their programs more effective in rural areas. He also asked the Department to take the initiative in identifying problems of rural communities that need the coordinated effort of the various Federal departments and agencies.

The Rural Community Development Service cooperates with all phases of rural development, and serves the Secretary of Agriculture and other departments of Government at the Washington level in the implementation of rural development programs. The Rural Community Development Service identifies Federal programs outside the Department of Agriculture that are still not effectively reaching rural areas because of administrative difficulties of communicating with a dispersed rural population. In order to make better use of these programs, the Rural Community Development Service works with these departments and agencies to overcome administrative difficulties.

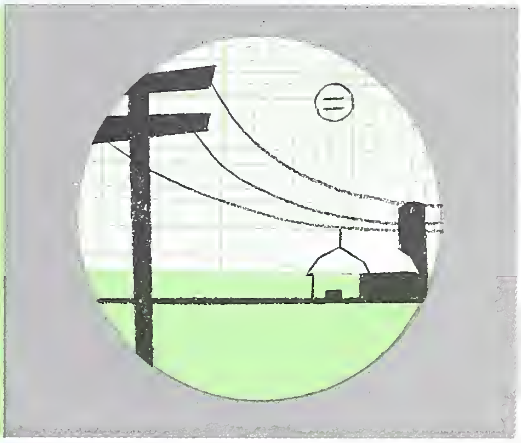
Many rural communities have made considerable progress where local leadership has become

mobilized and citizenship participation has been highly active.

Career Opportunities

Many departments and agencies in Government are becoming increasingly concerned with rural areas development as the relationship between urban and rural problems becomes more fully recognized and understood. The opening of this new horizon offers challenging opportunities for career growth, both in personal achievement and national service.

Rural Electrification Administration



■ In 1935 when the Rural Electrification Administration (REA) was created, only 10 percent of the Nation's farms had central station electric service. Today, over 98 percent of American farms are electrified. However, REA's task is still formidable: More than 150,000 new consumers are being connected each year, rural distribution systems continue to require increasing supplies of wholesale power, and system capacity is constantly being increased. The continuing objective of REA is to provide electric service in rural areas under rates and conditions comparable to those available in urban communities.

Nature of Activities

REA does not make grants or gifts of money. It makes loans. It has approved more than $6.3 billion in loans to over 1,100 electric borrowers and these loans are being repaid with interest under provisions of the Rural Electrification Act. REA electric borrowers have paid the Federal Government nearly $2.7 billion in principal and interest.

REA had been established by an Executive order in 1935 as a relief agency. However, the first administrator, after studying the problems involved, concluded that an effective rural electrification program could not be carried out as an unemployment relief program. The rural electrification program had to be established as an orderly lending program on an interest-bearing, self-liquidating basis.

The passage of the Rural Electrification Administration Act of 1936, authorizing loans to nonprofit associations, paved the way for the organization of rural electric cooperatives.

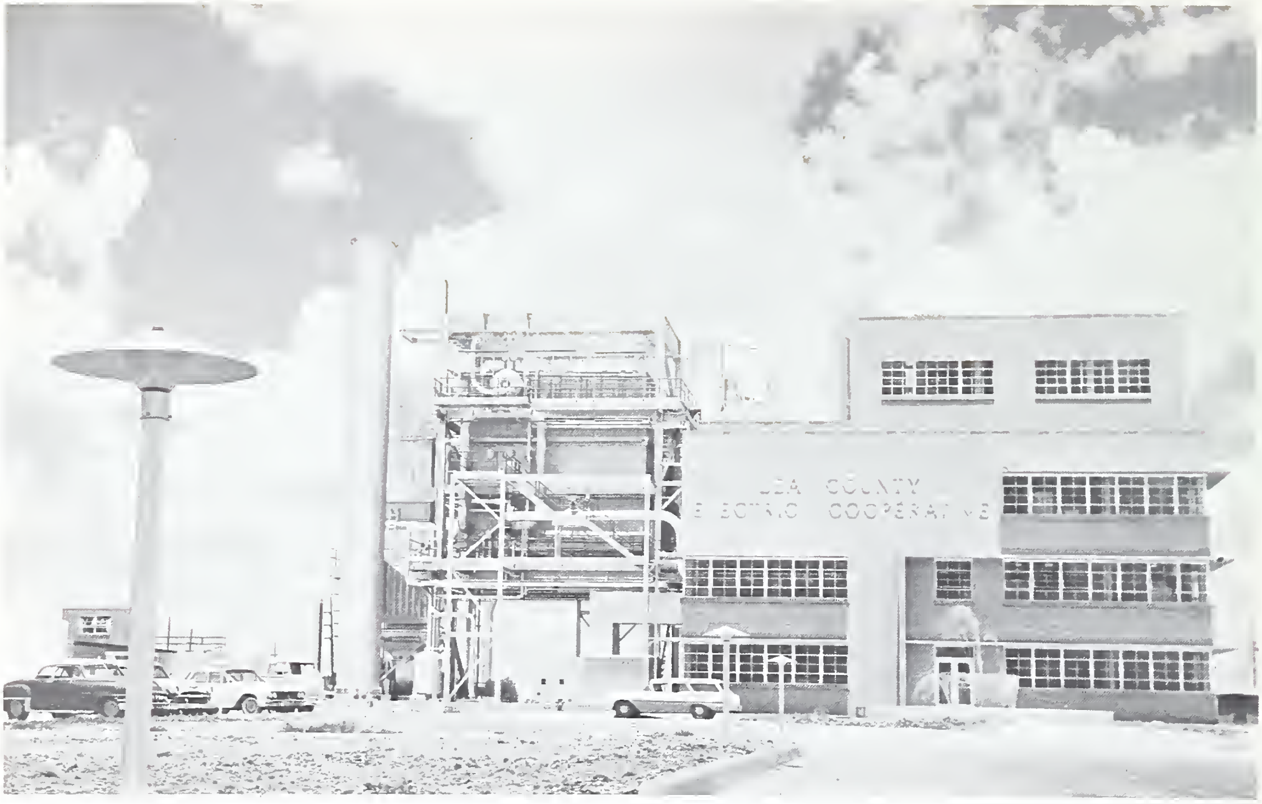
Today, nine out of every 10 organizations financed by REA electric loans are cooperatives. They are local, independent, tax-paying private enterprises, organized under State laws by rural people seeking electric service. REA's history of close association with rural cooperatives is a landmark in rural areas development. Through this program, the work and life of millions of rural people have been made infinitely easier.

These borrowers operate over 1.6 million miles of electric lines in 46 States, the Virgin Islands, and Puerto Rico. REA electric borrowers use the area coverage policy in their efforts to furnish electricity to rural areas. The lines they build with REA financing are designed to serve entire areas, including less densely settled sections as well as more populous ones. When REA examines a loan application, it considers the feasibility of the proposed system as a whole, not each individual line or section. This policy tends to limit the possibility of unserved pockets of consumers in isolated areas.

Through long-term loans and technical assistance, REA has helped to abolish much of the drudgery that was associated with farming. The application of electric power to farm production has done much to hasten the agricultural revolution in America.

In addition, the success of the REA program prompted Congress to amend the Rural Electrification Act in 1949 to provide for the extension and improvement of telephone service on the same basis.

REA has approved a total of nearly $1.4 billion in telephone loans to more than 600 commercial companies and over 230 cooperatives to finance telephone facilities: this includes nearly one-half



million miles of line to serve almost 2 million rural subscribers. The borrowers have made a total of over one-half million dollars in payments of principal and interest to the Federal Government in this more recent lending program.

Most of REA's 900 employees are located in Washington, D.C. Since REA has no branch or field offices, about 250 employees (engineers, management representatives, and accountants) operate from their homes in various locations scattered across the country; consequently, their homes serve as official headquarters. These employees receive, in addition to salary, per diem payments for expenses while on official duty away from their headquarters. There is also a travel allowance to cover the expenses of employees driving their own cars on official business.

Opportunities, Training, Advancement

Engineering, management, and accounting services are important parts of the assistance REA renders to its borrowers. For positions in these fields, appointments are made at grade GS–5 or GS–7, depending upon the applicant's qualifications as rated by the appropriate U.S. Civil Service Commission Office. Engineer and accountant trainees appointed at GS–5 are automatically promoted to GS–7 after successfully completing a 6-month training program. Training is in the form of lecture-discussion periods supplemented by related on-the-job work. This acquaints the employee with REA procedures, requirements, and practices. REA's training activities are conducted by experienced staff members and specialists in the various fields of telephone and electric utility engineering, operations, and management. Graduate study is available at several universities in the Washington area and at the U.S. Department of Agriculture Graduate School. All of these offer evening classes. Opportunities for advancement to higher grades are very good for those who demonstrate ability.

For further information, write to:

Director, Personnel Management Division
Rural Electrification Administration
U.S. Department of Agriculture
Washington, D.C. 20250

UNITED STATES DEPARTMENT OF AGRICULTURE

Soil Conservation Service

■ Employees of the Soil Conservation Service (SCS) work with people—all kinds of people—in the national program of soil and water conservation. Except for a staff of 300 in the Washington, D.C. office, the Service's 15,000 employees are located throughout the 50 States, Puerto Rico, and the Virgin Islands. Here at the "grass roots" level, where the bulk of the conservation job is being done, the Service works with landowners and operators, local organizations and communities, and other agencies.

Scope of Activities

Conservation today encompasses the full sweep of interrelated natural resources and their management and use.

For this purpose, the Service employs skilled personnel in a wide variety of occupations, including agronomy, wildlife and fishery biology, economics, forestry, geology, range conservation, soil conservation, soil science, administration and many others.

Nature of Activities

One of the Service's primary responsibilities is to give technical help to soil conservation districts that are organized and run by the landowners themselves under State law. SCS has taken on wider tasks as the need for wiser use of resources has grown. Some of these responsibilities include:

Small Watershed Protection Program

Under this program, the Service aids local organizations in planning and developing small watershed projects that protect the watershed itself, reduce floods, and provide water for irrigation, livestock, wildlife, recreation, and municipal uses; makes river basin surveys and prepares reports which provide a basis for coordinated resources development of river basin areas.

The Great Plains Conservation Program

This accelerated program administered by SCS in the Great Plains is bringing about greater agricultural stability in that region. The program aims at initiating needed land-use adjustments and the application of enduring conservation practices in the 10 Great Plains States.

Soil Survey

SCS has the leadership responsibility for the National Cooperative Soil Survey. Soil scientists have surveyed more than 700 million acres in this country. The findings of this inventory of our soils are not limited to agricultural uses. Today, soils information is also used extensively by engineers, urban planners, land appraisers, and others in sound planning for the future use of our land and water resources.

Snow Surveys and Water Forecasting

The Service's snow survey and water forecasting work is extremely important to agriculture, industry, and cities in the Western States. Service personnel cover about 70,000 miles each winter by skis, oversnow vehicles, and aircraft in measuring the snowpack of some 1,300 snow-survey courses. The data they collect are translated into a water-supply forecast. Water users in the West base their plans

for the year's operations on this forecast because most of their water supply comes from the snow that falls in the mountains.

Nonfarm Conservation

The need for developing and improving our soil and water resources has never been greater than today. Vast amounts of land are being taken out of agricultural use each year by our expanding population. New Housing developments, industries, and superhighways now stand on land that once grew a portion of this Nation's food and fiber. Proper use and planning are essential in these areas. The Service provides technical information to city and county governments, highway planners, zoning bodies, and others.

Resource Conservation and Development

The Soil Conservation Service has responsibility for directing the Department's resource conservation and development program. The program enables farmers, city people, rural communities, civic groups, and others to work together on their mutual land-use and resource problems and opportunities through resource conservation and development projects.

Assistance in Other USDA Programs

The Soil Conservation Service gives technical help to participants in the agricultural conservation, cropland conversion, and cropland adjustment programs of the USDA. The SCS also gives technical help to the Farmers Home Administration in making soil and water conservation loans and assists owners of private land in establishing recreation enterprises.

Employment Opportunities

Most positions in SCS are located in small towns and cities. A great deal of outdoor work is required in most of the professional jobs. New professional employees usually enter the Service at grades GS–5 and GS–7. Higher grade positions normally are filled by promoting someone already in the Service, through the SCS career development and promotion plan. This plan extends to all employees the opportunity to develop so they can accept greater responsibilities as opportunities arise.

Various training programs are available to help employees increase their proficiency in specialized fields or to equip them for administrative positions. Both on-the-job and group training provide intensive and specialized instruction. The instructors are experienced technical men.

For additional information about the Soil Conservation Service and the career opportunities it offers, contact:

Director, Personnel Division
Soil Conservation Service
U.S. Department of Agriculture
Washington, D.C. 20250

Statistical Reporting Service

■ The king-size job of staying abreast of American agriculture is the responsibility of USDA's Statistical Reporting Service (SRS). It issues many annual reports touching on almost every phase of the farm economy, such as supplies and prospective supplies of food and fiber, prices, farm labor and wages, and commodities in storage.

The Fact Finders

The name of Agriculture's fact finding agency has changed numerous times in the past hundred years, but its responsibilities have multiplied manyfold. Known as the Statistical Reporting Service since 1961, SRS now maintains 44 field offices throughout the United States in addition to its headquarters in Washington, D.C.

As the Nation's chief collector of agricultural statistics, SRS has developed into a complex, widespread organization. It provides considerable career flexibility and has a large number of professional positions. SRS offers opportunities for work involving a wide variety of crops and livestock. The scope of its efforts leads to an ever increasing emphasis on the most advanced mathematical statistical techniques. The Statistical Reporting Service is in the forefront of computer capabilities with its Washington Data Processing Center. The WDPC operates a large scale computer center designed to meet the needs of all agricultural requirements in the Washington area.

Where the Facts are Found

The Washington headquarters of SRS issues about 700 crop, livestock, and price reports per year, and the 44 field offices issue similar reports. Most of the information comes from questionnaires returned by some 800,000 farmers and businessmen who are volunteer reporters. Also, some 100,000 farmers in scientifically selected sample areas are interviewed and careful observations and measurements are made of test plots during the growing season. The final reports complete a cycle in which data are supplied by voluntary crop reporters, and resultant facts are returned to them and their neighbors to help them in their decision making.

The reports that are released include statistics on acreage, yield, and production of field crops and fruits and vegetables; numbers of various types of livestock and poultry; production of animal products; and grain and cold storage stocks. Prices received by farmers for commodities and services they buy, indexes of prices received and paid, and data on parity prices, farm employment, and wage rates are also included.

Users of Agricultural Statistics

There are many users of the crop, livestock, and price reports issued by SRS. Some farmers analyze the reports themselves; they decide what to produce and when and where to sell it. Others depend on the recommendations of economists and county agents whose judgment is often based on SRS facts. The reports are used by business firms which process and distribute farm products and by firms which supply farmers with fertilizers, machinery, and other production needs. The press helps consumers by providing agricultural statistics as guides to buying. The acreage allotments,

price supports, and conservation programs of the Federal and State governments are also based on statistical information.

Safeguarding Farm Facts

When reports on speculative crops such as wheat, cotton, and soybeans are being prepared, SRS takes special security measures. Such precautions prevent premature disclosure of information which might give an advantage in trading in these commodities. The reports, prepared behind locked and guarded doors, are released at a previously announced time in order to facilitate equal access to the information. Seconds after the release time, information from the reports is transmitted by telephone and wire to newspapers, magazines, and radio and television stations across the Nation.

Employment Opportunities

The technical staff of SRS is composed of several hundred agricultural statisticians and supervisory agricultural statisticians as well as smaller numbers of mathematical statisticians, computer programers, and systems analysts. These specialists work in 44 field offices and in Washington, D.C. For further information write:

Division of Personnel
Office of Management Services
U.S. Department of Agriculture
Washington, D.C. 20250

SECTION III

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PART
1

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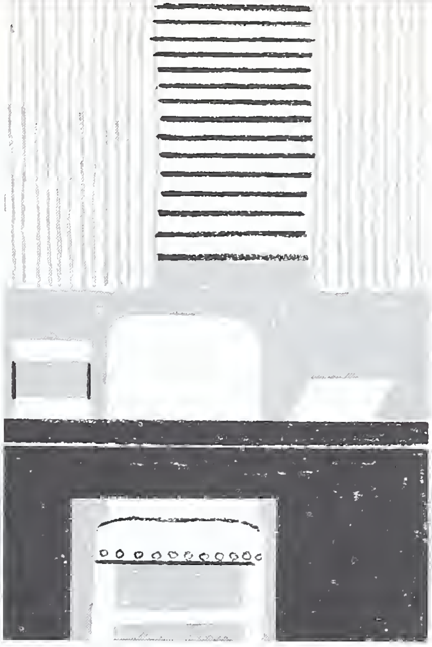


Administration

■ The Department of Agriculture, representing the public interest in agricultural matters, has played a decisive role in the success of American agriculture. This success has been shared by the farmer-producer, by industry, and most importantly by all Americans as consumers. In response to the needs and demands of these three groups, the Department has grown both in size and scope to become a multibillion dollar a year organization.

With an operation of this size, it is imperative that the Department attain maximum effectiveness in carrying out its objectives. This means that the programs of the Department must be administered in the most efficient manner possible. Sound management in planning, administration, and operations is mandatory. Top officials have established the principle that good management is a way of life in the Department.

The Department of Agriculture has made great strides in administration. One of the more recent programs of systematic management-improvement is MODE (Management of Objectives with Dollars through Employees).

This system of management, utilizing automatic data processing, pays Department of Agriculture employees, keeps their personnel records, and produces many personnel and fiscal reports. Other applications of the system are sought constantly, to insure maximum utilization of information available. The MODE system will not provide the answers management seeks, but will provide additional and more sophisticated tools which management can use to determine how well objectives are being accomplished.

Another step in the improvement of the administration of the Department was taken by the Secretary when he directed all agencies to carry out the policy of housing together, in consolidated offices, those field activities serving the same geographical area. This policy is designed to insure maximum service and convenience to the public . . . and promote efficiencies and economics in the handling of administrative functions common to all agencies.

The Department of Agriculture was the first agency of the Federal Government to grant exclusive recognition to an employee unit. The Secretary in a statement of policy has declared that it is the intention of the Department to cooperate with the representatives of employee organizations with the goal in mind of making the Departpartment a model employer and providing the conditions under which each employee will strive to be a conscientious and efficient public servant.

Careers in Administration

The management innovations and improvements just described provide a clue to the type of administration being developed in the Department of Agriculture. College graduates who are seeking a career in administration will find challenging and worthwhile career opportunities in any one of the several fields of Departmental administration.

Budgeting

Government budgeting is the staff function through which financial requirements of program objectives and resources are related to achieve, through the most effective and economical use of funds, the greatest efficiency of operations. It is a specialty that is both varied and challenging and one that requires persons having a broad general background and high qualifications.

The close relationship of budgeting to program planning and management demands familiarity with agency operations and principles of good management. Developing and evaluating budget estimates requires highly trained analytical ability and a faculty for relating detailed factors to broad considerations of public policy. Communicating the estimated needs of executive agencies for consolidation into an overall Federal budget and presentation to Committees of Congress requires the ability to express facts and ideas clearly in speaking and writing.

After needed funds have been obtained from Congress, their proper expenditure must be controlled and accounted for; this requires a knowledge of applicable laws and sensitivity to the intent of Congress. Some familiarity with related fields of fiscal management, legislative reporting, and accounting is also helpful in professional budget positions.

For convenience, budget work is separated into three categories: Budget formulation, budget execution, and budget procedures and improvements. However, many budget jobs frequently include responsibilities in all three categories. Budget positions at various levels ordinarily differ more in the amount of supervision required or given to others than they do in the type of work done.

Accounting

The variety and extent of program activities in the Department, ranging from research through the handling of large amounts of agricultural commodities, offer outstanding opportunities for interesting and rewarding careers in almost every field of accounting.

The complexities involved in recording and reporting the fiscal aspects of various programs require the services of qualified personnel in developing, maintaining, and appraising the effectiveness of accounting systems. Because the systems are frequently unique to each agency's individual needs, accounting positions do not fall in the limited area defined as governmental accounting, but include positions in cost accounting, corporation accounting, property accounting, and other specialities.

Accountants at the agency and departmental levels examine and evaluate accounting systems to determine their adequacy and effectiveness. They recommend modifications and revisions, and provide technical guidance in making changes.

Departmental staff accountants work with representatives of the General Accounting Office and the USDA program agencies in furthering the Government-wide accounting improvement program.

Most of the accountants of the Department work on operation and maintenance of accounting systems. The volume of transactions in large-scale lending and commodity-handling operations require a well-organized approach and the services

of numerous accountants to classify and record necessary information and provide reports and analysis of tabulated data.

Professional accountants are responsible for control of the accounting organization, for analysis and interpretation of summary information for the use of top management, and for adapting the existing system to meet emerging developments.

Some accountants specialize in accounting work associated with business or corporate type activities of the Department. The specialized accountant is responsible for the operation of unique accounting systems, for the control of the financial aspects of particular activities, and for the presentation and interpretation of data as an aid to management in controlling current and future specialized operations.

Personnel Management

To those interested in the selection, development, and use of human resources, personnel management offers a challenging opportunity. Employee development and improved employee performance are goals that the Department of Agriculture is striving toward. Through the recruitment and development of quality personnel, the methods and techniques of program operations will be constantly improved.

Therefore, the primary objective of the personnel officer is to provide an effective program for manpower management. This may involve the broad planning aspects of manpower review, analysis, and development, or it may involve such specific activities as recruitment and placement, job classification, training, and employee relations. In either case, the personnel officer should provide the most efficient and effective work force possible. In this way, he relates "men" to the "money and material" phases of management.

Management Analysis

Management analysis is a field in which a person with high analytical ability can find a challenging career. Management analysts evaluate the management systems of the Department and develop new or improved procedures, systems, and organizational structures.

The application of broad and general management principles to a variety of organizations, subject-matter areas, and functional activities is required in most management analyst positions. For this reason, applicants should have a broad education.

Among the varied functions assigned to management analysts, some call for specialized knowledge, while others are of a more general character. Typical duties include the development, evaluation, and improvement of management processes and organization. These involve organizational structure, work methods and procedures, work measurement, work simplification, management surveys, directives systems, and manpower utilization. The analyst applies a practical and theoretical knowledge of a variety of managerial principles, functions, practices, and techniques to the Department's management problems. Therefore, a primary essential of the management analyst is an ability to undertake the solution of a wide variety of problems.

Management analysts must be able to focus on the broad managerial matrix, instead of getting lost in the minutiae which are inevitably involved in most assignments. This ability grows out of their capacity to utilize their education and experience in a meaningful and creative manner to solve a variety of operational and managerial problems.

Employment Opportunities

The administrative positions just described are common to all agencies of the Department, in addition to the staff offices of the Secretary. Successful completion of the Federal Service Entrance Examination (FSEE) qualifies the college graduate for all of these positions.

The Management Intern Option of the Federal Service Entrance Examination offers additional opportunities for those interested in an administrative career. Not only does the management intern enter the Federal service at a higher grade than other qualified applicants, but in addition, he receives more intensive training and a wider range of assignments during his first year on the job.

The Department employs people in administrative positions ranging from grades GS–5 through GS–17. Most entrance positions are at the GS–5, 7, and 9 levels.

Advancement and Training

Most administrative people receive a promotion at the end of either 6 months or 1 year of service, and many receive another promotion at the end of the second year.

During the first 6 to 12 months, the new employee is aided and encouraged to get a broad grasp of the programs, administration, and management practices of the Department through discussions, seminars, and actual work assignments.

After the preliminary training period, employees are assigned to actual operating positions, but emphasis on training and development continues.

Throughout the first year, the Department attempts to expose its new administrative people to a meaningful blend of formalized training combined with challenging and worthwhile work assignments.

Qualifications

Graduates in public or business administration, government, political science, economics, law, or related social science fields find their academic background suitable to the initial requirements of most administrative positions.

The field of management in the Department of Agriculture is extremely broad and is open to both the specialist and the generalist. Therefore, those who have a general liberal arts background, as well as those with a public or business administration background, will find ample opportunities for employment.

How to Qualify and Apply

To qualify for an administrative position with the Department of Agriculture, you should first take the Federal Service Entrance Examination.

When you become eligible, submit an application form to the personnel division of the agency in which you are interested or to the—

Office of Personnel
U.S. Department of Agriculture
Washington, D.C. 20250

Agricultural Writer-Editor

GS-5 and GS-7

■ Just as marketing is the nerve center of the food and agriculture portion of our economy—the Information Division is the nerve center of USDA's Consumer and Marketing Service (C&MS).

Duties

The job of the writer-editor in this Division is to get information from and about this fast-moving service out to the farmer, the marketing industry, and the consumer.

The Agency, C&MS, (1) provides facilitative services, such as grading, inspection, and market news; (2) performs regulatory functions that help to safeguard the interests of the farmer and the consumer; (3) conducts research that finds better ways to get farm products to market—in better condition and at less cost; and (4) provides a number of food distribution services, including direct distribution of foods to the needy, and also food stamp, school lunch, special milk, and plentiful foods programs.

None of these programs can function effectively without a constant flow of information to the public. The writer-editor helps to prepare and keep this flow of information moving.

A writer-editor may be assigned to work primarily on information about any one or more of these programs, and he helps gain public understanding of these programs through all available media. He writes press releases and feature articles for newspapers, magazines, and trade papers for dissemination throughout a region or the Nation. He may prepare radio or television scripts or help plan motion pictures—and perhaps take part in some broadcasting or telecasting. He may write and edit leaflets and other publications. He may also work with visual materials, planning and selecting photographs and artwork to accompany printed matter, suggesting and organizing visuals for television presentations or for use at meetings or public exhibitions. He may work, too, on displays and exhibits destined for national and international conventions, fairs, and meetings.

In preparing these varied materials the writer-editor works closely with the program experts in C&MS, learning how the various programs work, their purpose and scope, their importance to the Nation.

Qualifications

Imagination, originality, and sound judgment are essential ingredients for this job, as well as the ability to write and express ideas effectively. As the beginning writer-editor gains experience and acquires additional skills through job-related training, he will find excellent opportunities for career advancement.

Writer-editors may be assigned to work in the Washington, D.C., headquarters or in one of the five area offices of the C&MS Information Division. These offices are located in Atlanta, Ga.; New York, N.Y.; Chicago, Ill.; Dallas, Tex.; and San Francisco, Calif. Regardless of where they work, writer-editors may be sent out on special assignments from time to time (1) to work with Extension Service personnel or with newspaper and radio outlets, (2) to provide information assistance at special hearings on market-

ing matters, (3) to help man exhibits, or (4) to carry out some emergency assignment.

Advancement

Writer-editors begin at either GS-5 or GS-7, depending upon their academic achievements and amount of experience, if any. Promotion to higher grades can be expected by those employees exhibiting initiative, ability, and willingness to take on additional responsibility.

Employment Specifications

You may qualify for the position on the basis of either appropriate experience or education or a combination of both. If you are qualifying on education alone, you must have a degree or substantial course work in journalism, plus a background in the agricultural or biological sciences. Applicants must pass the Federal Service Entrance Examination.

Employment Procedures

For further information, you may write to one of the following offices nearest your home:

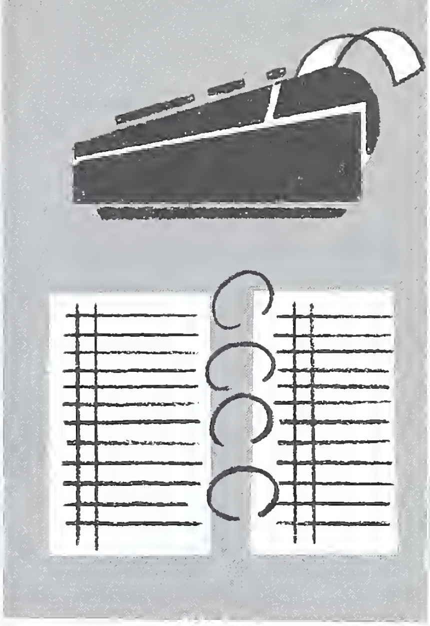
Personnel Division
Consumer and Marketing Service
U.S. Department of Agriculture
Washington, D.C. 20250

Field Operations Branch, Personnel Division
Consumer and Marketing Service
U.S. Department of Agriculture
536 South Clark Street
Chicago, Ill. 60605

Other agencies of the Department also employ writer-editors. For additional information about them write:

Office of Personnel
U.S. Department of Agriculture
Washington, D.C. 20250

Auditor and Special Agent



■ The Inspector General is responsible for the audit and investigative activities in all operations of the Department of Agriculture. The fulfillment of these responsibilities demands the wide-ranging talents of an imaginative and searching professional staff who have the capabilities of applying the techniques of their specialties to any one of thousands of challenging situations that arise in the day-to-day conduct of the complex and often critical affairs of the Department of Agriculture.

An auditor or special agent with the Office of the Inspector General (OIG) may be a member of a team examining the administration of this country's international agricultural program. He may participate in an evaluation of the Government's role in natural resources management; farm production; crop insurance; soil and water conservation, and a host of allied activities. He may conduct an investigation of alleged irregularities in any one of a hundred programs vitally affecting the economy of the United States.

Auditors

Internal audit in the Department of Agriculture is the independent appraisal of the operations of the Department as a protective and constructive service to management. The purpose of this work is threefold: to provide an objective and independent appraisal of *all* phases of operations and management controls to the Secretary, agency administrators, and all other levels of management; to inform management whether program objectives are being met and whether assets and contractual interests are conserved and protected; and to assist management in achieving efficient and economical program objectives.

The auditor's responsibility is to review, examine, and evaluate the Department's operational policies, systems, and procedures and report his findings and recommendations for corrective action to management.

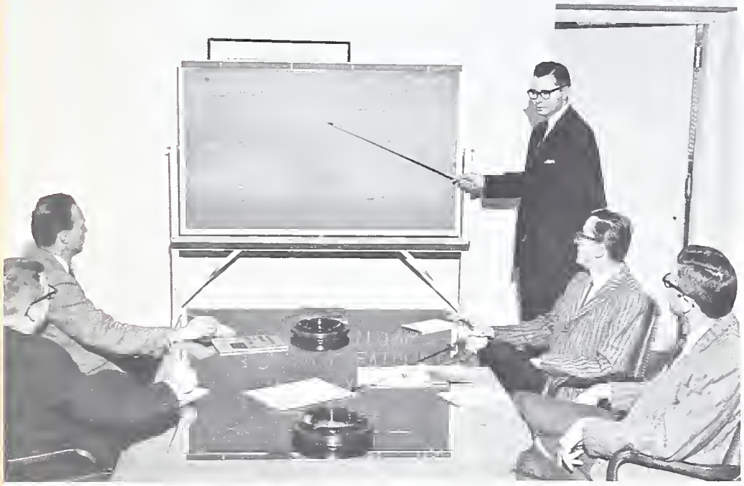
Auditing includes the examination of program documents for conformity to departmental regulations and sound business practices; the determination of the existence and application of proper administrative controls; and the appraisal of existing program and administrative policies for adequacy and effectiveness. The auditor must be able to locate, verify, and analyze detailed data and information for the preparation of accurate audit reports.

Special Agents

Investigative assignments in OIG are based on complaints, allegations, or other evidence of violations or irregularities in departmental operations. The special agent reviews and analyzes applicable laws, regulations, or contracts to determine whether there is in fact a violation or irregularity and to determine the nature and extent of the violation. In many instances the investigation will pertain to subject matters beyond the scope of general knowledge and requires extensive research and study.

The special agent must determine the method of conducting the investigation and the sources of potential information to be obtained, and then plan his itinerary and course of action accordingly with a view to expediency and economy. An accurate appraisal of the potential problems and uncertainties and the use of sound judgment in the initial steps of an investigation are highly important to a successful conclusion.

Upon initiation of any investigation each successive step must be carefully planned and followed through according to the discretion and judgment of the investigator. Every investigation has its own peculiar problems and no two investigations of the same type and character can be handled in the same manner, because of the circumstances, personalities, and physical factors involved. This calls for not only good investigative techniques but also a good concept of trade practices, customs, and procedures peculiar to the particular trade or industry to which the investigation relates.



Upon conclusion of an investigation, the special agent must correlate and assemble all data into a report for presentation to administrative officials for appropriate administrative, civil, or criminal action. Report preparation demands exacting care in the proper marshalling of facts and introduction of supporting evidence so as to reflect clearly and concisely all phases of the investigation. These reports in many instances are subject to use by the Office of the General Counsel, the Department of Justice, and U.S. Attorneys, and the content matter must be fully adequate and susceptible to ready use by these offices.

Job Opportunities

The Office of the Inspector General is organized on the lines of a headquarters staff located in Washington and regional operating staffs at seven major cities located in the heart of concentrated agricultural activities in each of the major geographical divisions of the United States. Working out of any one of the seven regional offices, employment with the Inspector General carries you either individually or as a member of a professional team of auditors or special agents, into every city, town, and village, where Departmental activities have an active interest. You work and travel with professional colleagues having training and interests allied with your own.

Appointment is at the GS–5 or GS–7 level, depending upon qualifications. OIG's professional career development and training programs provide a firm ladder for development, growth, and promotion up to and including grade GS–15. In addition, a nationwide organization makes it possible to move into and out of, or relocate permanently in the section of the United States of interest to you.

Qualifications

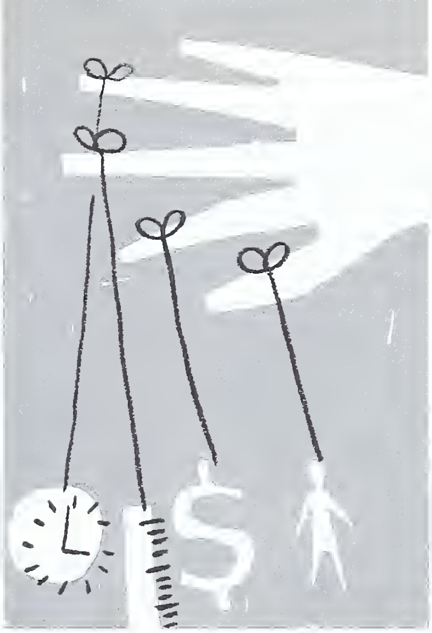
If your education or experience is in the field of law, accounting, auditing, economics, business administration, management engineering or agricultural administration—these and many other similarly challenging jobs can be yours as a professional member of OIG.

How to Apply

If you are interested in the work of the Office of the Inspector General and want to become a part of it write:

Division of Personnel
Office of Management Services
U.S. Department of Agriculture
Washington, D.C. 20250

Business Management



■ Development and protection of the American forests is vital to the sustained economic progress and strength of the United States. Sound management in planning, administration, and operations is mandatory. The skills and techniques of business administration specialists are needed in this management at all levels of Forest Service operations.

Today, the Forest Service employs 22,000 men and women in permanent full-time positions and 22,000 more in seasonal activities. They are engaged in the management and development of the 186 million acres that make up the National Forest and National Grasslands System; they develop extensive cooperative work with States and private forest landowners; and they carry on broad programs in research and international forestry.

Kinds of Jobs

An activity of such depth and scope requires the services of many professions, including those of business management. The business administration graduate will find career opportunities in several different fields in the Forest Service.

Accountants are an integral part of the management team. They find rewarding careers directing the establishment, appraisal, and modification of the accounting system and the operation of all accounting functions. Among these functions are general and financial accounting, coordination with budget development and control, cost accounting, capital investment accounting, auditing, and systems and procedures development. Accountants become acquainted with overall programs and objectives and apply their accounting backgrounds in support of management. Competence in accounting and sound training provide valuable background for advancement to top management jobs.

Budget officers usually begin their careers at field locations. Here they learn basic principles of work planning and work measurement which they relate to dollar values and budget preparation. This background prepares them for positions at the regional or national level where budget preparation is larger in scope. High level budget officers work closely with Department of Agriculture and Bureau of the Budget officials, and in Congressional liaison, in presenting and evaluating Forest Service appropriations data.

Administrative management in the Forest Service opens a wide field of interest to the analytically minded business administration student. Leaders in this field are constantly improving the basic pattern of workload analysis, work program planning, budget control, systems analysis, inspection techniques, electronic data processing, and other management tools. They are instrumental in bringing about more realistic work programs, better planning and control, and realization of program objectives.

During the past several years another field of business management, **administrative services**, has been rapidly expanding in the Forest Service. Administrative services requires sound business judgment in such fields as construction, supply, service contracting, and property and space management.

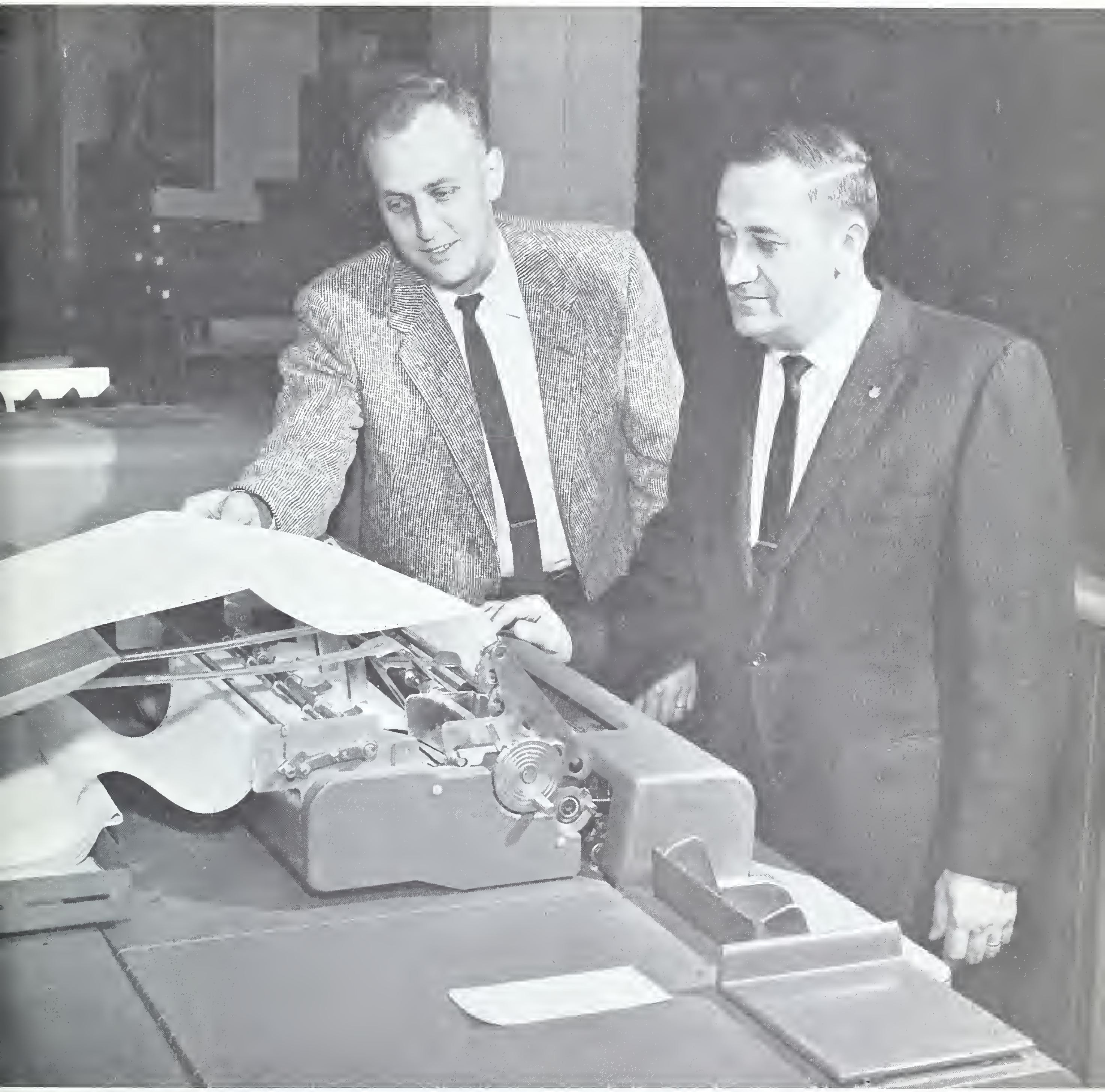
Prospects are that opportunities for growth, promotion, and a rewarding career in this line will continue to expand.

Personnel management offers challenging work to business administration graduates who are interested in people: helping others with their careers, finding qualified employees to fill job vacancies, and assisting to solve other man-power problems that become increasingly complex and stimulating each year. Personnel positions lead to careers in such areas as general personnel management, recruitment, training, position classification, safety, health, job welfare, and employee development.

There are opportunities to enter other fields, such as **public information and education,** for those who show ability and inclination in those directions.

Career Opportunities

The Forest Service offers excellent opportunities for training and career development. Widely scattered and diversified activities have resulted in numerous and frequent opportunities for a variety of work experience in an out-of-doors setting. This experience and training at field operating levels provides valuable background for positions at the regional or national level. Forest Service offices are located throughout the country, both in small towns and large cities. There is ample opportunity for moving from one location to another in the early days of a career. The Forest Service especially appeals to those with a desire to help build and protect the country's natural resources.



Career Development

Business administration graduates usually enter the Forest Service at the GS–5 or GS–7 level. Those who qualify under the Management Intern Program begin at GS–7 or GS–9. Administrative employees usually receive a promotion at the end of the first year.

For beginning Forest Service employees, strong emphasis is put on training and development. Many new employees are assigned to a forest or research station on the staff of the administrative officer, who is in charge of forest business management. From these initial positions, careers open up to administrative officer or to regional office jobs in the specialty of the employee's choice and ability. Promotion of the employee to higher level positions is based on potential and proven ability, in competition with other qualified candidates. Career opportunities open to business administration graduates extend through GS–15 and higher.

How To Apply

To apply for these positions, you must pass the Federal Service Entrance Examination. You can get information on this examination from a college placement officer or from your local post office. Or you can contact the Personnel Officer of the Forest Service regional office or research station nearest you. He will be glad to discuss your interests and career possibilities.

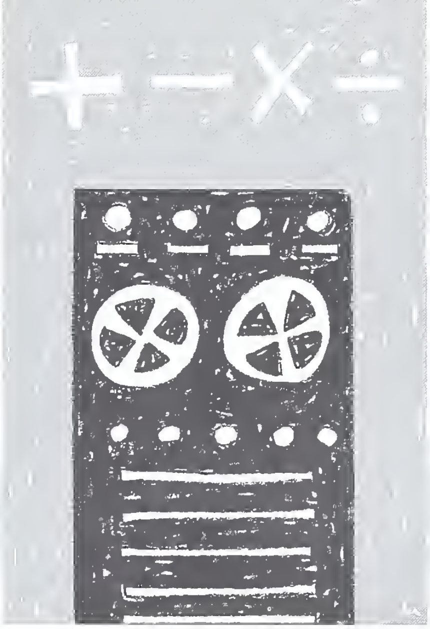
The U.S. Forest Service regional offices are at Missoula, Mont.; Denver, Colo.; Albuquerque, N. Mex.; Ogden, Utah; San Francisco, Calif.; Portland, Oreg.; Atlanta, Ga.; Milwaukee, Wis.; and Juneau, Alaska.

The U.S. Forest Service research stations are at Rio Piedras, Puerto Rico; Ogden Utah; St. Paul, Minn.; Upper Darby, Pa.; Portland, Oreg.; Berkeley, Calif.; Fort Collins, Colo.; Asheville, N.C.; and New Orleans, La.

The U.S. Forest Service Forest Products Laboratory is at Madison, Wis.

THE NATIONAL FOREST WORK PLANNING PROCESS
THE NATIONAL FOREST PLANNING JOB
THE FINANCIAL MEANS
OVERALL FOREST SERVICE OBJECTIVES
MULTIPLE USE MANAGEMENT PLANS
RESOURCE PLANS
FINANCES
SHORT-TERM OBJECTIVES AND ANNUAL WO & RO PROGRAMS
RECURRENT BASE ALLOTMENTS
FOREST AND DISTRICT ANNUAL PLAN OF WORK AND FINANCIAL PLANS
SHEET 6 ALLOWANCES
PROJECT ALLOTMENTS
PERIODIC WORK PLANS (ACTION NOW)
THE PAY-OFF EFFECTIVE ON-THE-GROUND ACCOMPLISHMENT

Computer Systems Analyst and Computer Programer



GS–5 and GS–7

■ The age of the computer began in 1947 in response to the complexities of the mid-20th-century modern world. From its original application in the field of science, the computer has now become an important tool of the manager. The computer's capacity to receive, store, act upon, and deliver vast quantities of information at electronic speeds has opened up a whole new dimension of management thought. Far from replacing the human being as manager, the computer has simply given him the capacity to be a much more efficient and effective manager. The vast quantities of information are more complete, systematically organized, and available in seconds. The use of automatic data processing (ADP) is freeing management from routine decision making and giving it the time and facts necessary for more scientific management.

The Federal Government, along with private industry, was quick to grasp the significance of the computer. Much of the early development work of computors was sponsored by the Government.

Since 1955 the Federal Government has been converting many of its accounting, statistical, personnel, and other management operations to electronic-data processing systems. ADP has the potential for facilitating one or both of management's key objectives: reduced costs and improved effectiveness of operations. It not only reduces clerical and accounting operations to the common denominator of routine, but also can be utilized more sophisticatedly to forecast, project, and simulate management activities.

The Department of Agriculture has been in the vanguard in the conversion of its fiscal, payrolling, and personnel functions to automation.

Job Opportunities

Due to the rapid increase in the use of electronic-data processing by the offices and agencies of the Department of Agriculture, the need for computer programers and systems analysts is continually growing. With the Department maintaining computer equipment in nearly 20 cities throughout the United States, a suitable job location can almost certainly be arranged.

Furthermore, because of the use of ADP equipment by various segments of the Department, an individual has a choice of agencies from which to select. Included are the following: Agricultural Research Service, Agricultural Stabilization and Conservation Service, Farmers Home Administration, Forest Service, Statistical Reporting Service, and Office of Management Improvement.

The Systems Analyst

The work of the systems analysts involves the design of systems for the electronic processing of subject-matter data. This includes the analysis of the present methods of accomplishing the program, the making of ADP feasibility studies, the development of functional and organizational changes to improve results, and the design of a system to the most effective use of ADP methods.

To do this, the systems analysts must have a good understanding of machine functions and capabilities and at least a general knowledge of programing techniques. He must have the ability to plan the most efficient organization structure, workflow procedures, and data-generation arrangements and the ability to integrate these into a complete ADP system.

The Programer

Computer programers normally use the flow charts that the analysts have prepared in their systems-design work and refine them into detailed machine-logic charts. These charts are the instructions which the computer uses to carry out its assignment. The final step in this process is the formulation of the code which is fed into the computer.

Programers develop test data and routines to verify the completeness and accuracy of the ADP programs, as well as the adequacy of the operator instructions. They may also conduct studies in improving programing techniques.

The actual work of the analyst and the programer varies considerably with the GS grade. The entrance levels of GS–5 and GS–7 are essentially trainee positions in which the trainee is expected to acquire rapidly: (1) the required subject-matter knowledge, (2) skill in systems analysis and designing, (3) programing techniques, and (4) understanding of computer capabilities and processes.

The higher level analysts and programers are responsible for increasingly complex activities and are typically involved in the planning and operation of the overall ADP system.

Qualifications

Programers and analysts are recruited at the GS–5 and GS–7 level. To qualify for GS–5, the applicant must have a bachelor's degree or applicable work experience. Those who qualify for GS–5 on the basis of education may also be eligible for GS–7 if they maintained a "B" average in college or graduated in the top 25 percent of their class. Graduate study, advanced degrees, or professional experience will qualify the applicant for entrance at higher levels.

While the knowledge of computers and ADP is an asset in this work, it is recognized that the number of people with this background is limited. Therefore, basic knowledge which is acquired fairly quickly is adequate, at least for the trainee who is new on the job.

The general qualifications which are required are: analytic ability, good judgment, ability to think logically, and tact and persuasive ability in dealing with operating officials.

Advancement

Programers and analysts generally enter at the GS–5 or GS–7 level, depending upon their qualifications. After a year, most are promoted to the next level. After the initial promotion, further advancement is based upon technical ability and merit. Both programers and analysts can progress to the GS–12 level in their technical fields without assuming administrative or supervisory responsibilities.

Training

Systematic advancement is insured by opportunities for course study, as well as on-the-job training. Programers and analysts have opportunities to attend special courses in the field of data processing; these courses are conducted by the Civil Service Commission, USDA, and equipment manufacturers.

Employment Procedure

For information on how to apply for a job as a programer or analyst, you may write to:

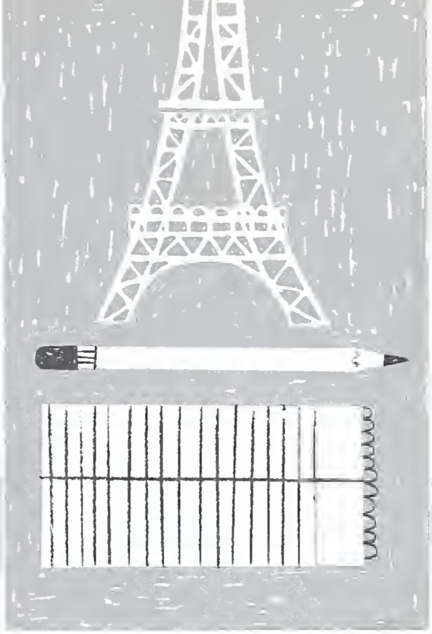
Office of Personnel
U.S. Department of Agriculture
Washington, D.C. 20250

United States Department of Agriculture

Secretary

(Overseas)

GS-5—GS-8



■ A challenging, stimulating, and enriching career as an international secretary is available to young women with superior secretarial-stenographic skills.

The functions of the Foreign Agricultural Service are accomplished by a staff of professional, technical, and administrative employees in Washington, D.C., and agricultural attachés and officers stationed at over 60 embassies and consulates throughout the world. A supporting staff of secretaries is carefully selected for assignment to these posts.

The Secretary's Role

The secretary is a key member of the attaché's staff. As principal secretary to the agricultural attaché, she is expected to handle a number of operating contacts bearing on the success of agricultural representation at the post; and to apply initiative and discretion in handling a variety of clerical, secretarial, and administrative duties necessary to the efficient operation of the attaché's office. To perform effectively, she must be conversant with the agricultural program objectives and with Federal Government procedures, particularly those applicable to the Foreign Agricultural Service. This knowledge can best be gained through on-the-job training with the Foreign Agricultural Service in Washington, D.C., prior to overseas assignment. Secretaries employed under this career plan normally should expect to spend one year in Washington, D.C.

Career Development

Post Preference

Upon completion of on-the-job training in Washington, D.C., the secretary is assigned to a foreign post. Expression of personal preferences as to post is welcomed and carefully considered in the assignment process; however, no assurance can be given that the employee will be assigned to the post of her choice, since assignments necessarily must be based upon the needs of the Service. However, as she acquires seniority with the Foreign Agricultural Service, there will be greater opportunity to realize her post preference.

Orientation Training

After post assignment is determined, the next step is to prepare the secretary for it. She will attend the Foreign Service Institute of the Department of State in Washington, D.C., to learn what a foreign post is, how she will fit into it, what her problems are most likely to be, and protocol of diplomatic service. Along with this, Foreign Agricultural Service will schedule within the Department of Agriculture individual orientation training related to the post of assignment. Foreign language training may also be involved before departure from Washington, D.C., or after arrival at the post of assignment.

Career Rotation

The fact that Foreign Agricultural Service positions in Washington, D.C., and at foreign posts are in the competitive civil service permits the fullest utilization and development of career personnel through rotation of assignments. Prior to completion of a tour of overseas duty by the employee, negotiations are underway concerning her subsequent assignment at the same or a different post, or with Foreign Agricultural Service in Washington, D.C. Following home leave in the United States, with travel at government expense, the employee reports to her next duty station.

Advancement Opportunities

The first overseas assignment normally will be at grade GS–5. However, opportunities for advancement are available to those who assume greater responsibilities and demonstrate potential and flexibility for rotation between positions in Washington, D.C., and foreign posts in accordance with the needs of the Service.

Qualifications and Requirements

In order to be considered for the position of secretary (stenographer), GS–5 level, the applicant must have career civil service status or have eligibility for reinstatement by having acquired such status under previous Federal employment. The applicant must meet the experience and training requirements set forth by Civil Service Commission standards—3 years of quality experience, or a combination of training and experience equivalent to 3 years of experience. Stenographers interested in eventual overseas assignment also are recruited for prior service in the Washington, D.C. office at GS–3 and GS–4. Normally, for positions at these levels, the Foreign Agricultural Service selects applicants who have qualified in the Civil Service Commission Stenographer Examination.

Additional requirements for overseas assignment:

- 21 years of age, single with no dependents.
- High school graduate.
- American citizen for 10 years.
- Excellent health.
- Favorable full field personnel security investigation.
- Availability for assignment on a worldwide basis.
- Tactfulness, mature judgment, initiative and ability to work independently.
- Ability to adjust quickly to new and varied working and living conditions.
- Poise, personal dignity, neatness, and good grooming.

Allowances and Benefits

In addition to the regular annual leave and sick leave granted, career overseas employees are eligible to earn home leave. Home leave may be granted for return of the employee to the United States, with travel at Government expense, between two tours of overseas duty. In some instances, career employees assigned abroad are eligible for quarters allowance and a cost-of-living allowance, in addition to the regular salary. However, these allowances are subject to change as conditions change.

Under the Foreign Service Act, overseas employees are eligible for health benefits that provide for the payment by the Government of hospitalization costs for the treatment of an illness or injury incurred while serving abroad. Benefits, in addition to or in lieu of those received under the Foreign Service Act, are provided for under the Federal Employees Compensation Act.

How To Apply

If you desire further information about the Foreign Agricultural Service and how to become a part of it, write to:

Director, Personnel Division
Foreign Agricultural Service
U.S. Department of Agriculture
Washington, D.C. 20250

Section III

PART 2

CAREERS IN AGRICULTURAL MARKETING

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Agricultural Market Reporter (Dairy and Poultry) 2.01
Agricultural Market Reporter (Fruits and Vegetables) 2.03
Agricultural Market Reporter (Livestock and Meat) 2.05
Agricultural Marketing Specialist (Commodity Programs) 2.07
Agricultural Marketing Specialist (Fruits and Vegetables—Agreements and Orders) 2.09
Agricultural Marketing Specialist (Fruits and Vegetables—Regulatory) 2.11

United States Department of Agriculture

Agricultural Market Reporter

(Dairy and Poultry)

GS–5 and GS–7

■ The dairy and poultry market news reporter helps provide a vital service to producers, processors, shippers, handlers, merchandisers, and others associated with our dynamic, ever-changing poultry and dairy industries.

He is part of a team of competent, fast-moving individuals who together comprise the Dairy and Poultry Market News Service of USDA's Consumer and Marketing Service.

Duties

These market news reporters play an important role in continuing the established tradition that "the market news always gets through." They gather and report factual, reliable market information all during the trading day, so that buyers and sellers know the conditions of the market when it opens, during the height of trading, and at the closing.

Market news gets the facts "on the table," so that buyers and sellers will have reliable information upon which they can base their decisions of when to sell, where to sell, when to buy, and where to buy.

In gathering information, the market news reporter is in touch with trade groups at the major markets and shipping areas. He finds out who to see and where to go to get the "feel" of the market. He learns to sift fact from fiction and to analyze the information he gathers. He assembles data on prices, supplies, demand, and movement of dairy and poultry products, and prepares summaries that give a clear picture of the current market for these products.

Once his reports are assembled and completed, the market reporter must get his facts out within minutes to those who urgently need them. In doing this, the reporter utilizes the 20,000-mile leased teletype system of C&MS, which is a "two-way street" with a constant flow of market information going out as well as coming in. He also makes use of all media of communications for reaching the public, including radio, television, newspapers, and mimeographed reports sent through the mail.

To perform this highly important work, the market reporter must be an individual of the highest integrity, and must continually employ diplomacy in his relationships with people from industry. He must be able to express himself aptly in speech and in writing, both in gathering information and in reporting it.

The Dairy and Poultry Market News Service has 32 field offices which report market information across the country, and reporters may be assigned to any of these as the need arises. Through travel, the reporter gains wide experience since marketing practices frequently differ in the various areas. In recent years, market news offices have gradually moved away from the traditional market centers and into the areas where the products originate.

Training and Advancement

Dairy and poultry news market reporters enter on duty at the GS–5 level, or at the GS–7 level if they have had the necessary education and experience. All receive intensive on-the-job training.

After 1 year of satisfactory service they are eligible for promotion to the next higher grade level.

Employment Specifications

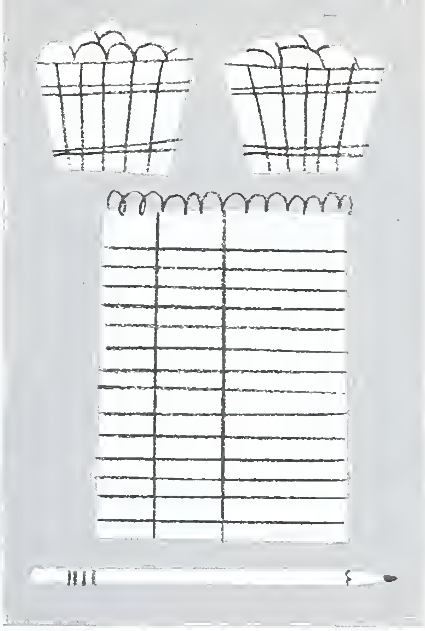
You may qualify for the position on the basis of either appropriate experience or education or a combination of both. If you are qualifying on education alone, you must have a bachelor's degree in agricultural economics, dairy or poultry husbandry, or dairy manufacturing. Background in general economics, statistics, and journalism is also desirable. You must qualify on the Federal Service Entrance Examination. You may qualify for either the GS-5 or the GS-7 level, depending upon your education or experience.

Employment Procedures

For further information, you may write to:

Field Operations Branch, Personnel Division
Consumer and Marketing Service
U.S. Department of Agriculture
536 South Clark Street
Chicago, Ill. 60605

United States Department of Agriculture



Agricultural Market Reporter

(Fruit and Vegetable)

GS–5 and GS–7

■ The market news reporter is the "eyes and ears" of the fruit and vegetable industry. Growers, shippers, and receivers all depend on the market reporter for accurate, timely reports on market prices and conditions—the information they need to make their marketing decisions.

Duties

The fruit and vegetable market reporter is part of a nationwide team of market news men, gathering information on more than 100 commodities in production areas and at terminal wholesale markets throughout the country.

The information gathered by this expert team of market analysts is flashed across the country by 20,000 miles of leased teletype wire and relayed to hundreds of radio and TV stations, newspapers, and other news media so that everyone who needs the information can get it as quickly as possible.

Each day the market reporter gets out where the trading is. He talks to buyers and sellers to get the latest information on supplies, rate of movement, demand, and quality of the produce moving to market. He looks over the various fruits and vegetables available, learning where they were grown, the types of containers, and their condition.

He analyzes all of this information on the basis of his own experience in the marketing of produce and relates it to previous days and years. He must bring to this analysis a thorough understanding of marketing, economics, and management. Above all, he must be fast and accurate.

The good market reporter has to be a good journalist, too, for the market report must be gotten to the waiting audience. The market reporter feeds it to other areas via the leased wire system, and then uses radio, television, and newspapers to get the information out in his own area. Many reporters go on the air themselves with daily market reports.

Qualifications and Advancement

The market news reporter today could be a college graduate, with a major in horticulture, agricultural marketing, or agricultural economics. On the other hand he might be an experienced fruit and vegetable salesman or someone who has worked as a fresh fruit and vegetable inspector. He enters the service at the GS–5 or GS–7 level depending on his qualifications. A capable GS–5 reporter can expect to advance to the GS–7 level in 1 year. Most of the market news reporting positions are at the GS–9 and GS–11 levels; the reporter can expect to advance to the GS–9 level after satisfactorily completing a year at the GS–7 level. Promotion to GS–11 depends on the available openings and a reporter's qualifications. Advancement to GS–12 and GS–13 depends on individual capacities and initiative, particularly talents for administrative and supervisory responsibilities.

Training

The beginning reporter is given a period of intensive on-the-job training, where he learns the techniques of market reporting under the close supervision of an experienced reporter. At

the completion of this training he is usually assigned to one of the seasonal reporting offices and gradually advanced to larger offices with more responsibility.

Employment Specifications

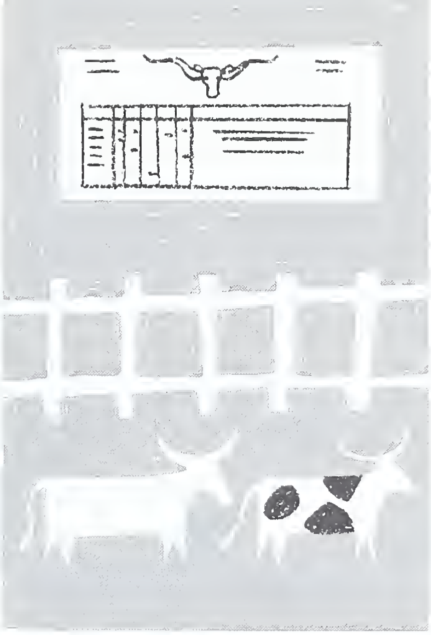
You may qualify for the position on the basis of appropriate experience or education or a combination of both. If you are qualifying on education alone, you must have a bachelor's degree in horticulture, agricultural marketing, or agricultural economics. Applicants for GS–5 positions must pass the Federal Service Entrance Examination. College graduates who rank in the upper 25 percent of their classes, or have at least a "B" average, may qualify for a GS–7 position without taking a written test.

If you have 4 years experience in one or more positions which provide you with a good background in marketing fresh fruits and vegetables, you may qualify for a GS–7 position. A B.S. degree in the above major courses may be substituted for 3 years experience in qualifying for GS–7.

Employment Procedures

For further information, you may write to:
Field Operations Branch, Personnel Division
C&MS, U.S. Department of Agriculture
536 South Clark Street
Chicago, Ill. 60605

United States Department of Agriculture



Agricultural Market Reporter

(Livestock and Meat)

GS–7

▪ The livestock and meat market reporter plays a vital role in marketing two of this country's most valuable farm products.

In this field job, he is a member of a fast-moving and efficient team, the Livestock Market News Service, in USDA's Consumer and Marketing Service.

He is in a specialized program developed by the Livestock Division to recruit across the board trainees. After 6 months study in the Division, program trainees can go into meat grading, market news reporting, or standardization work.

Duties

Every working day, members of this 86-man team are out where the trading is going on—at large central stockyards, auction markets, feedlots, packing plants, or meat warehouses. There they gather, by personal observation and through contacts with members of the trade, the information that farmers and others engaged in marketing of livestock and meat so urgently need—prices, demand, supplies, and movement. These are the data that are needed to keep our vast national marketing system operating at peak efficiency.

Then the reporter must get his carefully gathered information out to his waiting audience through all available media—radio, television, newspapers. He may go on the air himself, often right from the stockyards.

Throughout the trading hours, the reporter constantly feeds his information back to his office where it goes out over the C&MS 20,000-mile leased wire for use by buyers and sellers all across the Nation.

To perform this important and exacting job takes a combination of talents. The reporter must be a competent judge of livestock with respect to grade and weight. He must be a diplomat in his relationships with the public and be a keen judge of character in determining reliable sources of information. He must be constantly alert to separate fact from fancy and be able to express himself both orally and in writing. Therefore, he must be something of a journalist.

He must strive to master the fundamentals of management, economics, and marketing, in addition to keeping currently informed on the national livestock picture. Above all, he needs to develop speed and accuracy; the value of market news is related directly to how fast it is disseminated—and it is of no value at all if it is not accurate.

The first reporting assignments are usually in gathering basic sales information. As the reporter's training progresses, he is given added responsibilities until he becomes fully capable of reporting a livestock market. He may be promoted to the GS–9 level after 1 year as a GS–7, if he shows the required degree of ability, aptitude, ambition, and willingness to obtain wide experience.

Grade GS–9 is considered the journeyman position and further promotion depends primarily

upon the individual's capacities and initiative, particularly his talents for administrative and supervisory responsibilities.

The Livestock Market News Service maintains 45 offices scattered across the country and reporters may be assigned to any of these offices as the need arises. Most beginners are stationed initially in the Midwest, where a good cross section of all classes of livestock pass through the markets and neophyte reporters can achieve the necessary training in reporting on all species.

Employment Specifications

You many qualify for the position on the basis of either appropriate experience or education or a combination of both. If you are qualifying on education alone, you must have a bachelor's degree in animal husbandry and be in the upper 25 percent of your class, or have a "B" average. Applicants with 1 year graduate work specialty in this field may also qualify. Applicants will be required to have a personal interview with staff members located in one of the Market News offices.

Employment Procedures

For further information, you may write to:
Field Operations Branch, Personnel Division
Consumer and Marketing Service
U.S. Department of Agriculture
536 South Clark Street
Chicago, Ill. 60605

United States Department of Agriculture

Agricultural Marketing Specialist

(Commodity Programs)

GS-5 and GS-7

▪ Since the beginning of the price support programs of the 1930's, agricultural commodities have been made available for movement into consumption channels both at home and abroad as needs require. When production exceeds needs, farm income is protected from undue market-depressing effects by adding price-supported commodities to stocks under storage loans or Government ownership, thus stabilizing farm market prices. The principal activities of the Agricultural Stabilization and Conservation Service are to carry out various farm action programs in the general fields of production adjustment, conservation assistance, and price, market and farm income stabilization. More specifically, these activities include:

1. Price support through commodity loans to farmers or direct purchases of commodities from farmers.
2. Production adjustment through acreage allotments, marketing quotas, and various conservation programs.
3. Conservation assistance through sharing with individual farmers the costs of conservation practices.
4. The management of Commodity Credit Corporation inventories acquired under price support.
5. Disaster and defense activities to augment feed supplies for farmers in disaster areas.

Job of Marketing Specialist

The agricultural marketing specialist assists in administering commodity programs. He studies market and storage conditions, price trends, and transportation factors and makes recommendations regarding programs in his area. He is responsible for management of inventories acquired under price support through domestic and foreign sales, donations, and storage. Marketing specialists study crop reports, trade journals, and market data to determine price trends and to formulate procedures, instructions, contracts, and forms necessary for clarification of commodity programs.

In an agency such as ASCS, there are several specialized fields in which an agricultural marketing specialist may be trained. These fields are related to the commodities and programs which ASCS handles. For example, an individual with the appropriate training and specialization may eventually become an expert in the various grain programs and therefore become a grain marketing specialist. By the same token, he may also become a cotton marketing specialist, a fats and oil marketing specialist, or a marketing specialist particularly concerned with processed commodities. The area of specialization in which an individual is ultimately placed depends upon that individual's background, experiences, and choice.

Location of Work

Since the commodity programs which ASCS administers are nationwide, the jobs are not limited to the Washington, D.C. area. Agricultural marketing specialists are employed in the three commodity offices of ASCS in Kansas City, Mo.; Minneapolis, Minn.; and New Orleans, La. The

Kansas City office is primarily a grain office and is staffed principally by grain marketing specialists. Since the Minneapolis office deals with processed commodities, the marketing specialists employed there are concerned with such programs as dairy products, oils, and miscellaneous products. The prime concern of the New Orleans office is with the cotton programs and, accordingly, it is particularly interested in the cotton marketing specialist. However, each of these offices, as well as the central office in Washington, hires a certain number of marketing specialists in various other options as well.

Training and Promotions

The marketing specialist trainee, who is employed at the GS–5 or GS–7 level, receives an extensive, as well as intensive, training course which includes on-the-job instruction under highly qualified specialists. Promotion from GS–5 to GS–7 and from GS–7 to GS–9 can usually be attained after the individual has worked at the next lower grade for 1 year and has demonstrated his ability for more responsibility. Promotion to GS–11 is also usually attained after 1 year of service at GS–9.

GS–11 is considered the journeyman, the level at which an employee carries out most marketing specialists duties with a minimum of supervision. Of course GS–11 is not the top level to which a marketing specialist can progress and further advancement depends upon an individual's potential and initiative, usually in the supervisory area.

Qualifications

To qualify as an agricultural marketing specialist, one must have a background in agricultural economics, marketing, transportation, or business administration. A combination of education or work experience and background may be acceptable if appropriate. Applicants for GS–5 and GS–7 positions must pass the Federal Service Entrance Examination.

How to Apply

If you are interested in a career as an agricultural marketing specialist and wish additional information about the opportunities the Agricultural Stabilization and Conservation Service offers, write:

Personnel Management Division
Agricultural Stabilization and Conservation Service
U.S. Department of Agriculture
Washington, D.C. 20250

United States Department of Agriculture

Agricultural Marketing Specialist

(Fruits and Vegetables—Agreements and Orders)

GS–5 and GS–7

■ Today's fruit and vegetable grower often faces bigger problems in marketing his crop than in producing it. He has to deal with a rapidly changing market, concentrated buying power, and consumer demands for higher quality and better packaging. The specialist in marketing agreements and orders for fruits and vegetables helps growers to analyze and solve these important marketing problems.

Marketing orders are dynamic self-help programs through which growers work together to solve marketing problems that are too big for them to solve alone. Marketing orders are now in effect for 48 different fruit, vegetable, and tree nut crops grown in 33 States. The products handled under these programs have a farm value of well over a billion dollars a year—40 percent of the farm income from all our fruit and vegetable crops.

Duties

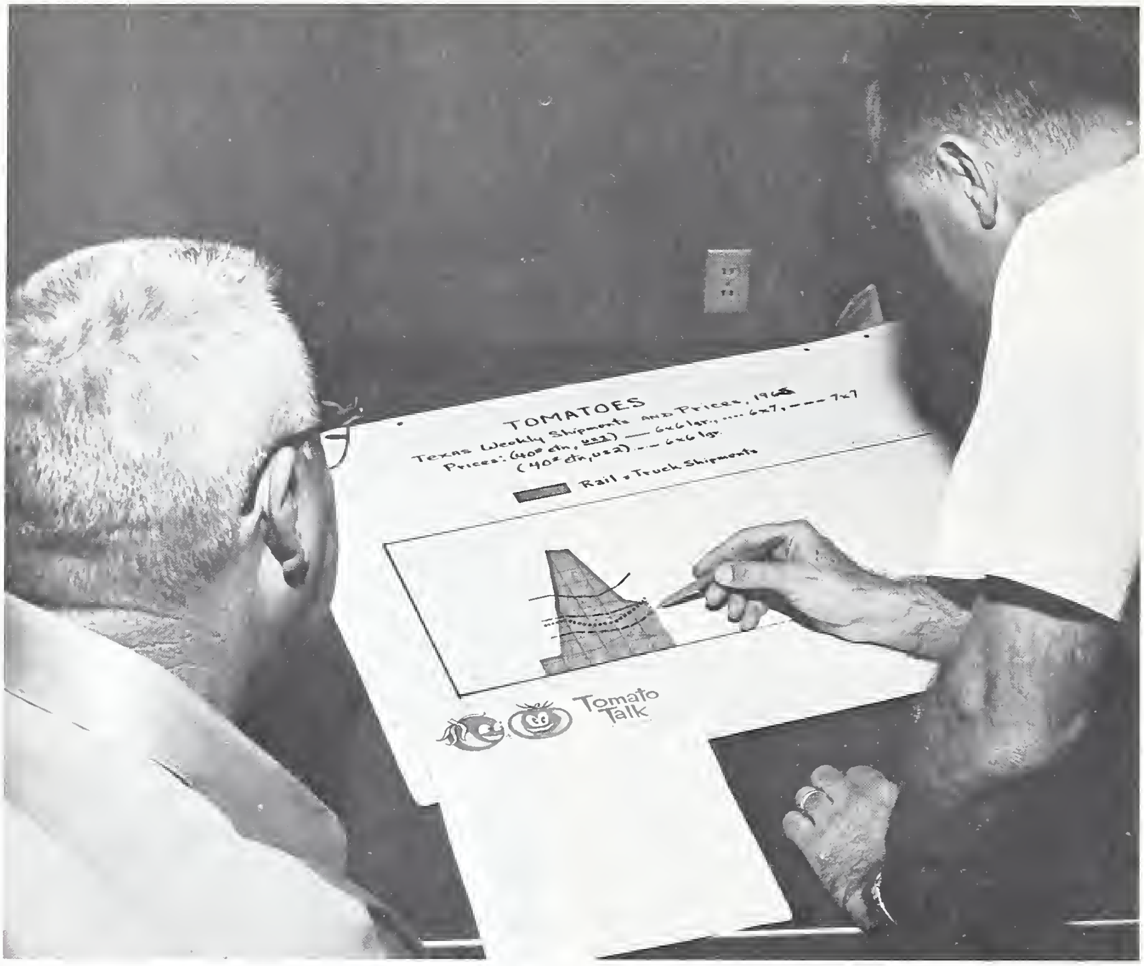
The marketing specialist plays a key role in the smooth functioning of these programs. He needs to know horticulture and the problems that the growers and shippers face. Just as important he must be a diplomat—for the success of these programs depends on thorough understanding and strong support from the industry itself.

It is the job of the marketing specialist to help the farmers and shippers analyze their problems and discover how a marketing order might help in their situation. He has to gauge the industry's awareness of its marketing problems and its active support of positive measures for coping with them.

If the industry is ready to work seriously toward a marketing order program, the marketing specialist helps design a program tailored to its needs and conditions. This is highly important, since the program's success depends heavily on a "neat fit" to the situation.

The most important work is done after the marketing order goes into effect; that is, helping the industry use it most effectively.

All in all, the marketing specialist gets valuable experience in analyzing agricultural industries and their economics and in dealing with the farmers, shippers, and other businessmen who make up these industries.


TOMATOES
Texas Weekly Shipments and Prices, 196
Prices: (40# ctn, US1) —— 6x6 lgr., ... 6x7, – – – 7x7
(40# ctn, US2) ·–· 6x6 lgr.
Rail & Truck Shipments
Tomato Talk

Training

The rookie marketing specialist (GS–5) is given intensive on-the-job training under highly trained specialists. In some cases he travels in the field to get firsthand experience with marketing orders.

The GS–11 level is considered the journeyman position for a marketing specialist, and further promotion depends on the individual's capacities and initiative—particularly his talents for administrative and supervisory responsibilities.

Most of these positions are located in Washington, D.C., but there are several positions in each of eight field offices at: Fresno, Los Angeles, Sacramento, and San Francisco, Calif.; Denver, Colo.; Lakeland, Fla.; Portland, Oreg.; and McAllen, Tex.

Employment Specifications

You may qualify for the position on the basis of either appropriate experience or education or a combination of both. If you are qualifying on education alone, you must have a bachelor's degree in horticulture or closely related agricultural subjects, plus ability to make effective contacts with producers, handlers, and farm organizations. You must qualify on the Federal Service Entrance Examination. You may qualify for either the GS–5 or the GS–7 level, depending upon your education or experience.

Employment Procedures

For further information, you may write to Personnel Division, Consumer and Marketing Service, U.S. Department of Agriculture, Washington, D.C. 20250.

Agricultural Marketing Specialist

(Fruits and Vegetables—Regulatory)

GS–5 and GS–7

■ *"Good afternoon. PACA Office."* Those are familiar words to fruit and vegetable growers and dealers throughout the country. Growers and dealers are accustomed to calling the PACA office—more formally known as the Regulatory Branch, Fruit and Vegetable Division—when they have a contract dispute, when someone has failed to pay for their produce, or when they just need advice on dealing under the Perishable Agricultural Commodities Act.

The regulatory marketing specialist is the man they call.

The Perishable Agricultural Commodities Act was set up many years ago at the request of the produce industry. Produce men deal in fast-moving, highly perishable commodities, and they have to depend on the good faith of those they deal with. So PACA sets up a code of fair play, under which the fruit and vegetable industry carries on its day-to-day operations.

Duties

The big job of the regulatory marketing specialist is to handle the complaints that come under the Act. It's engrossing work.

Suppose a carload of potatoes from Maine arrives in New York. The receiver says they're in poor condition, and won't meet the terms of his contract. He wants to reject the carload. The shipper, on the other hand, feels the carload did meet the contract terms. They're deadlocked. What do they do? Call PACA.

The PACA man first will try to get all the facts from both sides. Then he'll explain how the law and the regulations fit this case. Usually, he can arrange an informal settlement, with the shipper and receiver agreeing on conditions that are fair to both.

If they can't agree on an informal settlement, one of them may file a formal complaint. Then the PACA man submits the complaint, with all the facts and his recommendation, to USDA's legal officers for a decision.

The PAC Act also requires that interstate traders in fruits and vegetables hold licenses, and the PACA man is responsible for licensing dealers in his area.

Basically, the PACA man is a "referee." He makes sure that everyone in the produce game follows the rules laid down under the PAC Act, so everyone has a fair chance. Obviously, it calls for tact and diplomacy of the highest order. Regulatory specialists say their work is fascinating because of the variety of mental demands and the variety of people they meet.

PACA men make a lot of personal contacts throughout the produce industry. They often make personal investigations of complaints—auditing books and records of produce firms and interviewing the parties involved.

Training and Advancement

The regulatory marketing specialist starts as a trainee at the GS–5 or GS–7 level, and receives intensive training. He learns the provisions of the law, the PACA regulations, and the practices of the produce industry.

Normally, the marketing specialist is assigned to one of the four field offices in New York City; Chicago, Ill.; Los Angeles, Calif.; or Fort Worth, Tex. These offices each cover PACA work in several States. If he starts at the GS-5 level, he is promoted to GS-7 after successfully completing 1 year in training. After 1 year at the GS-7 level, the specialist is usually ready to advance to GS-9. Opportunities for promotion to GS-11 and GS-12 are excellent for the individual who demonstrates analytical ability, technical skill, and initiative.

Employment Specifications

You may qualify for the position on the basis of either appropriate experience or education or a combination of both. If you are qualifying on education alone, you must have a bachelor's degree in an appropriate field. Applicants must pass the Federal Service Entrance Examination, and will have an interview with staff members in the field office or in Washington, D.C. Applicants who ranked in the top quarter of their college graduating classes, or have at least a "B" average, may qualify for a GS-7 position.

Employment Procedures

For further information, you may write Field Operations Branch, Personnel Division, Consumer and Marketing Service, U.S. Department of Agriculture, 536 South Clark Street, Chicago, Ill. 60605.

Section III

PART 3

CAREERS IN AGRICULTURAL PROGRAMS

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United States Department of Agriculture

Agricultural Commodity Grader

(Grain)

GS–5 and GS–7

■ Making sure that grain of dependable quality moves into our domestic and export marketing channels is the job of the grain inspector (agricultural commodity grader).

Nearly all the grain that is shipped through these channels is inspected and graded according to standards set by USDA's Consumer and Marketing Service. And the men who supervise this work are inspectors employed by the Grain Division of USDA's Consumer and Marketing Service.

Duties

The C&MS grain inspector observes and, when he finds it necessary, corrects the methods used by licensed inspectors—who are employees of States, as well as private and commercial inspection agencies. He does this to insure that the grades they assign are accurate and uniform. Working out of a district grain inspection office, he is right on the site of the terminal market, or the export market, to observe whether licensed inspectors are performing the license inspector's duties according to the methods specified under the U.S. Grain Standards Act.

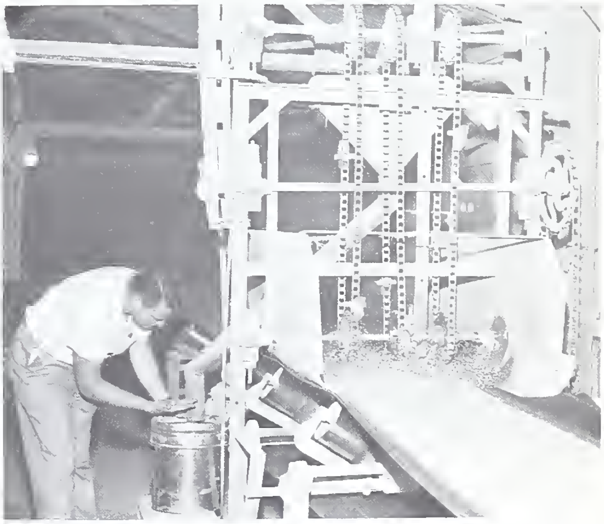
He also makes laboratory tests on samples of such grains as wheat, corn, soybeans, grain sorghum, oats, barley, and flaxseed to check the accuracy and quality of their work.

The grain inspector develops the necessary skills to carry out aptly the supervisory checks of the work of licensed inspectors. He must constantly use diplomacy and tact in his relationships with licensed inspectors and with trade people. He must act as a mediator in handling inspection appeals when applied for by persons who disagree with the inspectors' grade determinations. And he acts as a law enforcement agent in enforcing the law under which the inspections are made.

The grain inspector also may inspect and grade certain products that are related to grains, such as rice, dry beans, peas, and lentils. The products are inspected under a service which is provided to trade people who request it.

Advancement

Grain inspectors enter on duty at the GS–5 level, or at the GS–7 level if they have the necessary education or experience. Those who enter



at the GS–5 level, will progress to GS–7 in 1 year and to GS–9 after gaining needed experience.

Those who are willing to transfer from one location to another in order to gain broader experience and who show a potential for higher level administrative, supervisory, and technical work may reach the GS–11 level after additional experience, depending on when vacancies occur. The GS–12 and GS–13 positions are highly competitive, but men who are outstanding in executive ability, tact, and diplomacy and who have demonstrated complete mastery of all the technical aspects of grain inspection work reach these top positions.

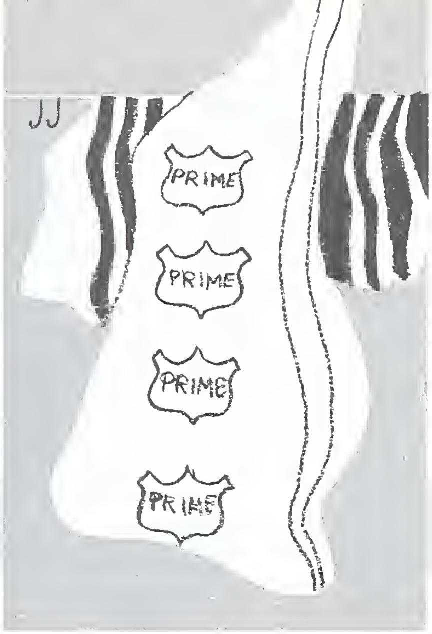
Employment Specifications

You may qualify for the position on the basis of either appropriate experience or education or a combination of both. If you are qualifying on education alone, you must have a bachelor's degree in agriculture. Applicants need not take a written test.

Employment Procedures

For further information, you may write to:
Field Operations Branch, Personnel Division
Consumer and Marketing Service
U.S. Department of Agriculture
536 South Clark Street
Chicago, Ill. 60605

United States Department of Agriculture



Agricultural Commodity Grader

(Meat)

GS–5

▪ The Federal meat grader plays a key role in the marketing of a food which is vital to the health and economic well-being of our Nation. Meat is the most important source of protein in our diet. Farmers receive more than one-third of all their cash income from livestock. Consumers spend about 20 percent of their food budget for meat.

Accurate identification of the quality of meat, then, is of tremendous significance. And this is the job of the meat grader.

Duties

Trainees are employees of the Livestock Division in USDA's Consumer and Marketing Service. The beginner is given training in market reporting and standardization work as well as grading.

However, most become meat graders and work out of one of the many field stations located throughout the United States. There are a limited number of jobs at the GS–7 level in livestock and meat reporting at field offices or on the small standardization branch staff in Washington which works on the development of grade standards. Trainees who are to be promoted to these positions receive more intensive training in these activities during the latter months of the program.

Every meat grader must become an expert on the official standards for grades of beef, veal, lamb, and mutton—for these are the tools of his trade.

Meat grading is largely a subjective process, depending upon the grader's knowledge, skill, and judgment. It is a responsibility he cannot take lightly, for a higher, or a lower, grade often means a considerable difference in price. And meat grading is a voluntary service, for which the user pays a fee.

The grader, therefore, must be sure of his judgments and able to defend them if challenged. And he must be something of a diplomat to foster good relations with those employing the meat grading service, while still maintaining his integrity and that of the Federal service.

Meat graders may be transferred from one station to another, and to different parts of the country as staffing needs change. Such transfers serve to broaden the experience of the grader, since the nature of the work varies in different sections of the country. Graders receive continuous guidance from supervisors in their area and from the grading service's national technical supervisors. The meat grader can be promoted to a supervisory job if he displays the potential for administrative responsibility.

Training and Advancement

A trainee starts at the GS–5 level and receives an intensive 6 months of on-the-job training. This includes temporary details to three or more field stations at important livestock marketing and meat packing centers. Here he practices actual grading under the close supervision of an experienced meat grader, learning to evaluate individual grade factors and combine them into a final grade. Gradually, he is given more difficult grading assignments and less supervision. He also learns the fundamentals of the "acceptance service"—that is, the examination and acceptance of meat products for conformance with detailed purchase specifications.

Basic to all of his other training is the trainee's study of the grade standards. He learns the history and the theory of the grade standards—why up-to-date standards and uniform application of them are important to fulfill industry needs for a meaningful system of market identification.

He finds out how new grade standards are developed and older ones revised and learns how to evaluate research results for possible application in improving the grade standards.

And the trainee learns how the meat grading program is operated and the policies which guide it. He also becomes acquainted with the closely related livestock and meat market-reporting work of the Livestock Division.

Finally, after successful completion of his 6 month training period, the beginning meat grader is promoted to the GS–7 level and gets his first regular meat grading assignment. But his education continues. And as he learns and progresses, he will qualify for more responsibility and higher grades. He is promoted to the GS–9 level after 1 year as a GS–7, if he progresses satisfactorily and demonstrates that he can perform the duties of the higher grade position.

Outstanding individuals may advance to GS–11 within 3 to 4 years. Competition for higher grades is keen, and only those who show supervisory and administrative talent are selected. Promotion to GS–13 and GS–14 jobs is possible, but usually only after the grader has served at the GS–12 level for at least 4 to 5 years.

Employment Specifications

You may qualify for the position on the basis of either appropriate experience or education or a combination of both. If you are qualifying on education alone, you must have a degree in animal science or animal husbandry. You must have completed courses in both livestock judging and meat judging. Good health is necessary, since meat grading, in addition to the mental discipline required, is hard physical work and the grader is subjected to frequent and sudden temperature changes. The ability to drive an automobile is desirable.

No written examination is required for applicants with 2 or more years of college training.

Employment Procedures

For further information, write to the Personnel Division, Consumer and Marketing Service, Washington, D.C. 20250 or the Field Operations Branch, Personnel Division, Consumer and Marketing Service, U.S. Department of Agriculture, 536 South Clark Street, Chicago, Ill. 60605.

United States Department of Agriculture

Agricultural Commodity Grader

(Processed Fruits and Vegetables)

GS-5

■ The processed fruit and vegetable grader is part of a nationwide team of quality experts who play a vital role in the efficient operation of our far-ranging marketing system.

Duties

Processors, retailers, and dealers all over the country depend on USDA's grading team for impartial, expert evaluation of processed fruit and vegetable quality.

A buyer in New York, for instance, can get his supplies from a processor 3,000 miles away—without ever seeing the processor or the products. He can do this with confidence, because an official inspection certificate, issued by a USDA grader, tells him exactly what he is getting.

Many processors, too, depend on this grading team to help them process their products to U.S. grade standards. A grader is often stationed in the processing plant as resident inspector (1) to make continuous checks on all the processing steps, sanitation, and quality control and (2) to grade the product as it is being packed.

Basically, of course, the grader must become a quality expert. Effective grading depends on the grader's knowledge, skill, and judgment. It is a responsibility he cannot take lightly, for a higher or lower grade often means a considerable difference in price.

He must also be something of a diplomat, in fostering good relations with the firms that use inspection, and in working with the firm's employees to get the inspection job done.

Training

Normally, the processed fruit and vegetable grader starts at the GS-5 level. He receives intensive formalized training for the first year to qualify him as a full-fledged grader. During this period he gets instruction in microscope work, in drawing a representative sample, and in the use of the visual aids and the other inspection techniques that have been developed to help him apply the U.S. grade standards accurately.

He also studies the grades themselves—the basic tools of his trade. These grade standards form a common trading language for the whole industry, and standardized interpretation of the grades is vital.

Advancement

After satisfactory completion of 1 year of service the grader is promoted to GS-7, and gets his first regular assignment. Of course, he continues to learn, and advancement to the journeyman level (GS-9) may take place within 2 to 3 years.

Outstanding individuals and those who show supervisory and administrative talent may advance to the supervisory levels (GS-11, 12, and 13). Competition for these higher grades is keen, however.

Employment Specifications

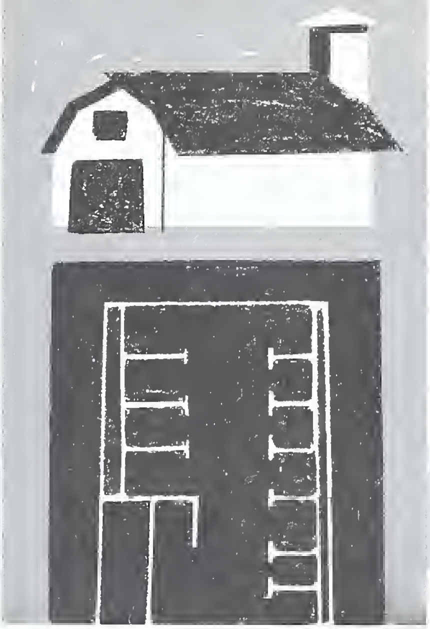
You may qualify for the position on the basis of either appropriate experience or education or a combination of both. If you are qualifying on education alone you must have a bachelor's degree in the agricultural or biological sciences. No written examination is required—only a personal interview with staff members in one of the 30 field inspection offices maintained by the inspection service throughout the country.

Employment Procedures

For further information, you may write to:

Field Operations Branch, Personnel Division
Consumer and Marketing Service
U.S. Department of Agriculture
536 South Clark Street
Chicago, Ill. 60605

United States Department of Agriculture



Agricultural Management Specialist

GS–5 and GS–7

▪ With rapidly increasing population, the need to revitalize and recapitalize rural America is becoming more and more important. To capable, ambitious young men interested in assuming leadership in rural communities, the position of agricultural management specialist in the Farmers Home Administration (FHA) offers a unique challenge.

Agricultural management specialists have the important responsibility of extending credit and supervisory aid to operators of no larger than family farms to help them develop successful scientific farming programs. Adjustments in farming must be accompanied by growth in nonfarm enterprises and activities. By means of rural housing, water distribution and waste disposal, recreation, and land use adjustment programs, FHA provides capital for long-needed improvements in residential and farming communities. FHA also helps rural communities strengthen their economies by coordinating use of rural areas development services available from other Federal agencies. In addition, technical and financial assistance is provided to rural communities that plan widescale rural renewal programs.

The Job

Graduates in agriculture are needed for appointments as agricultural management specialists GS–5 and GS–7.

The primary duties of the positions are to advise on or perform professional work in the making and servicing of loans. Professional knowledge of the basic principles, concepts and practices of farm management, rural credit, crop and livestock production, soil conservation, and water management must be applied to local conditions.

Promotional Opportunities

Opportunities for promotion are good. Agricultural management specialists are hired at GS–5 and GS–7 and may be promoted up to GS–11 in county offices. Advancements to higher level positions in State offices and the national office are made from county positions.

A 6-month induction training program is provided for new agricultural management specialists. On-the-job training continues during each employees' career. Special training sessions are conducted to equip employees for new or specialized tasks. Employees are given increased responsibilities and corresponding advancements as they demonstrate ability.

College sophomores and juniors are hired for summer employment at grades GS–3 and GS–4 through the student trainee program. Their FHA work supplements academic training. After graduation, a student trainee is promoted to the GS–5 level and continues his career.

Qualifications Required

Education

For all GS grades, applicants must have successfully completed one of the following:

- A full 4-year college course of study leading to a bachelor's or higher degree, with major study in agriculture or a closely related field.

- At least 30 semester hours of course work in the agricultural or related sciences, plus additional experience or education of an appropriate nature to total 4 years of education.

Additional Training and Experience

For GS–5: none

For GS–7: at least 1 year of professional experience. Entrance at the GS–7 level is also possible if the applicant has (1) completed 1 year of graduate study in an appropriate field, (2) maintained a "B" average or better in college, (3) graduated in the upper 25 percent of his class, or (4) achieved other specified scholastic recognition.

Technical Ability and Personal Traits

Agricultural management specialists have a leadership role in working with other Federal, State, and local agencies to strengthen the family farm, rebuild the rural community, and alleviate rural poverty. Applicants must be able to give sound technical advice and guidance on farming, rural community development, and financial management operations. They also must have the personal traits necessary to meet and deal effectively with individuals, groups, and the general public.

Supervisory or Administrative Ability

Many positions require the ability to supervise or administer all or part of the FHA program in an assigned geographic area. Applicants must have the ability to deal satisfactorily with technical workers and professional employees in the fields of supervised agricultural credit and rural community development and have a sound knowledge of the procedures and methods used to supervise and manage such work.

How To Apply

Application forms and additional information may be obtained from the Director, Personnel Division, Farmers Home Administration, U.S. Department of Agriculture, Washington, D.C. 20250.

United States Department of Agriculture

Consumer Food Programs Specialist

GS–5, 7, 9, 11, 12

▪ It's a big job helping to feed over 40 million Americans. In all 50 States—as far north as Alaska, west to Hawaii—as well as the Virgin Islands, Guam, and Puerto Rico, the Consumer and Marketing Service consumer food programs are at work; bringing better diets to children, needy adults, older folks, victims of natural disasters; and helping expand markets for our abundant food production. Maybe you can help.

These challenges of modern agriculture are met by a variety of programs staffed by professionals of diverse training and experience in . . . marketing economics . . . nutrition . . . public administration . . . institutional feeding . . . food retailing . . . business administration . . . social welfare administration . . . political science . . . money and banking.

The national school lunch and child nutrition programs provide cash and food donations to help schools serve children nutritious low-cost lunches and now breakfasts (on a pilot basis). Administered through State and local public agencies, both programs serve needy children free of charge.

The commodity distribution program donates foods—acquired under USDA's price-support and surplus-removal programs—to the States for distribution to schools, charitable institutions, and needy families. These foods are diverted when needed for emergency feeding in areas hit by hurricanes, earthquakes, floods, and other natural disasters.

School lunch and commodity distribution specialists analyze needs, plan efficient dispersal of Federal funds and foods, and stimulate effective use of those resources for maximum benefit to the Nation's school children and needy people.

The newest of the food help methods—the rapidly expanding food stamp program—uses a special Federal food currency to increase the food purchasing power of low-income families. C&MS has responsibility for authorizing and assisting local retailers who accept the food coupons. Federal employees in food stamp areas across the Nation work directly with retailers and wholesalers and their associations in making the program effective.

The plentiful foods program seeks to increase regular commercial marketing of foods that are temporarily in unusually heavy supply; C&MS food trade representatives use their marketing and retailing know-how to stimulate industry-Government teamwork in merchandising and promoting the plentiful foods.

Training and Advancement

The consumer food programs assistant is employed at the GS–5 or GS–7 level, depending on his education and experience. He receives a year of on-the-job training at the grade to which he is appointed. He will receive training in the administration of the Food Stamp Act, child nutrition programs, school lunch programs, commodity distribution programs, or plentiful foods programs. Employees in due course may be promoted to consumer food programs specialists, GS–9 to GS–12.

Promotional possibilities in the consumer food programs are good. A number of young persons employed in these programs have advanced to GS-13 and GS-14 supervisory positions.

Employment Specifications

College graduates are needed with degrees in welfare adminstration, public administration, economics, political science, social science, marketing, accounting and a wide range of academic disciplines. Of particular interest are persons who demonstrate potential to do administrative work and who are eager to learn.

Employment Procedures

For further information write to the Personnel Division, Consumer and Marketing Service, U.S. Department of Agriculture, Washington, D.C. 20250, or Field Operations Branch, Personnel Division, Consumer and Marketing Service, U.S. Department of Agriculture, 536 Clark Street, Chicago, Ill. 60605.

United States Department of Agriculture

Crop Insurance Fieldman

GS-5, 7, 9

Crop Insurance Supervisor

- For people with general farm backgrounds and an interest in assisting farmers in their vital role in the American economy, there are many challenging jobs within the Department of Agriculture. Among these are the Federal Crop Insurance Corportation (FCIC) positions of Crop Insurance Fieldman, GS-5, and crop insurance supervisor, GS-7 and GS-9.

Nature of the Work

The FCIC was created February 16, 1938, by the Federal Crop Insurance Act to promote the national welfare by improving the economic stability of agriculture through a sound system of crop insurance and providing the means for the research and experience helpful in devising and establishing such insurance. Insurance coverage is now available for 25 crops in 39 States.

Crop Insurance Fieldman

The fieldman explains and sells Crop Insurance to farmers within an assigned geographical district. He seeks out prospective buyers and develops means of promoting the Crop Insurance program. This brings the fieldman into contact with various community and county organizations, banks and civic groups, as well as farmers, affording the fieldman the opportunity to become acquainted with communities and to contribute to their development and security through the FCIC program.

The fieldman obtains and spot checks acreage reports from the farmers; these reports are used to establish the premium rates and amount of insurance under the Crop Insurance contract.

The fieldman visits farms and inspects damaged or destroyed crops, determines time and cause of loss and the amount of insured acres. He makes an equitable adjustment of loss after careful analysis of all pertinent facts. The fieldman may also assist in evaluating the productivity and risk of farms to determine the correct actuarial bases used in establishing rates and coverages.

While the fieldman is on the job, he has an opportunity to learn about the total Crop Insurance program and to train for the next higher level in field work. After a year of successful service the Crop Insurance Fieldman, GS-5, is normally qualified for promotion to Crop Insurance Supervisor, GS-7, when such a vacancy occurs.

Crop Insurance Supervisor

The Crop Insurance Supervisor, GS-7, is concerned with training and leadership responsibilities in conducting sales campaigns and loss adjustment activities in one or more counties. He also promotes good public relations and understanding of the FCIC program through personal contacts. Other duties include assigning work to fieldmen; screening applicants for fieldmen jobs; personally selling insurance; investigating controversial cases involving disputes over contracts, acreage reports, and premiums to correct misunderstandings; and investigating the ability of debtors to pay accounts.

The next level of responsibility in crop insurance field work is that of the Crop Insurance

Supervisor, GS–9. Applicants who are assigned to positions at this grade usually have performed the duties at the GS–7 level.

At all grade levels, employees are engaged in extensive field work and travel in an assigned area which involves both driving an automobile and walking over farmland.

Employment Opportunities and Qualifications Required

For most positions in the Corporation, applicants need an eligible rating in the Crop Insurance Fieldman and Supervisor Examination.

Graduates with bachelor degrees in agricultural economics, agronomy, soil science, or related fields and with 6 months of specialized experience may qualify for Crop Insurance Fieldmen, GS–5. The GS–7 and GS–9 positions require 1 and 2 years, respectively, of specialized experience, in addition to the bachelor's degree.

For fieldman positions at GS–5, the qualifications may be based on: (a) 3 years of farming and selling experience; (b) 3 years of education above high school level and farming and selling experience; (c) a combination of (a) and (b). For supervisor positions at GS–7, 4 years of experience are required. For supervisor positions at GS–9, 5 years of experience are required.

For a few other positions, applicants may qualify by means of the Civil Service Commission's Federal Service Entrance Examination.

Locations of Positions

Positions are organizationally established in State offices listed below, but official stations are usually in smaller towns.

Montgomery, Ala.
Fresno, Calif.
Denver, Colo.
Boise. Idaho
Springfield, Ill.
Indianapolis, Ind.
Manhattan, Kans.
St. Paul, Minn.
Jackson, Miss.
Sedalia, Mo.
Lewistown, Mont.
Lincoln, Nebr.
Raleigh, N.C.
Bismarck, N. Dak.
Columbus, Ohio
Stillwater, Okla.
Columbia, S.C.
Huron, S. Dak.
Nashville, Tenn.
College Station, Tex.
Kenbridge, Va.
Spokane, Wash.
Madison, Wis.

Employment Procedures

Application forms and additional information may be obtained from:

Personnel Branch
Federal Corp Insurance Corporation
U.S. Department of Agriculture
Washington, D.C. 20250

There is no written examination, but competitors are rated on the extent and quality of their experience and training relevant to the duties of the position. Such ratings will be based upon competitors' statements in their applications and any additional evidence secured. Applicants selected from the register of eligibles will be personally interviewed for potential employment.

Applicants should file Standard Form 171, Card Form 5001–ABC, and Standard Form 15 with the Interagency Board of U.S. Civil Service Examiners for Washington, D.C., 1900 E Street, NW., Washington, D.C. 20415.

Operations Trainee

(Utilities)

GS–5 and GS–7

■ The Rural Electrification Administration (REA) helps bring electric and telephone service to rural America through long-term loans and technical assistance. Engineering, management, and accounting services are important parts of this assistance.

In 32 years of operation, REA has financed the construction of more than 1,100 rural electric systems serving 5 million consumers in 46 States, the Virgin Islands, and Puerto Rico.

Since 1949 when the telephone loan program began, more than 800 REA-financed telephone companies and cooperatives have placed close to 3,400 modern dial exchanges in operation in rural areas to serve more than 1½ million subscribers.

Career Opportunities

Career opportunities are available for seniors majoring in business administration or accounting, or economics in combination with some business administration courses.

Each year a number of college graduates are selected by REA from the Civil Service Federal Service Entrance Examination for a 6-month training course in utility operation, management, accounting, loan appraisal, and related work. Most trainees are eventually assigned to field locations where considerable travel is required.

The training period generally includes a 1-month assignment with an REA field representative to observe firsthand the operations and management of a number of REA borrowers' systems. This on-the-job training is supplemented by conferences with REA specialists and lectures related to our program. If desired, graduate courses may be taken at one of the local universities.

Opportunities for Advancement

Appointments are made initially for duty in Washington, D.C. Applicants who receive an eligible rating for GS–5 are appointed at that grade. Applicants who receive an eligible rating for GS–7 in the examination are appointed at that grade.

Upon completion of 1 year's service in GS–7, assuming the employee demonstrates sufficient ability, the chances are good for promotion to GS–9. Employees who continue to demonstrate ability on the job can expect to be promoted to GS–11 after 1 year at the GS–9 grade level. Ample opportunities exist for further advancement to GS–12 and GS–13 positions as the employee develops in the organization.

REA follows a promotion-from-within policy insofar as commensurate with good management practices. All vacancies are advertised in a manner which assures each employee an opportunity to apply and to be considered by those responsible for making selections.

Work Assignments

After completion of the 6-month trainee program and upon demonstrating sufficient ability and aptitude, some employees are assigned to a field location in some area in the country, where considerable travel will be required. In this assignment, the employee, depending on his formal training and aptitude, works as an assistant to a

field representative or to a field accountant. These fieldmen handle REA's relations with borrowers in a specific area such as a state, a portion of two states, or two or more states, depending upon the number of borrowers in the particular area. When fully trained and experienced, most employees are assigned to the position of field representative or field accountant and receive progressive promotions. The exact geographic location cannot be predicted, but all field assignments are made as mutually satisfactory as is possible. Field representatives and accountants are classified in GS–12.

What Field Representatives Do

Field representatives advise and assist electric and telephone loan applicants and borrowers on all loan, management, and operating phases of the industry. Field accountants conduct preloan and postloan audits of telephone system records and advise and assist loan applicants and borrowers on accounting and record keeping.

Since REA has no branch or field offices, the representative operates from his place of residence, which serves as his official headquarters. Field employees receive, in addition to salary, per diem payment for expenses and travel allowances while away from headquarters.

There are some permanent assignments available in Washington, D.C. for positions as operations analyst, loan appraiser, and accountant. Operations analysts analyze the general business operations and management of loan applicants and borrowers to whom loans have already been made. Loan appraisers review and analyze applications for loans. This work involves general economic analysis, feasibility studies, management studies, and appraisals of facilities. REA accountants advise borrowers regarding the installation and operations of their accounting systems. They also examine accounts of loan applicants for use in appraising loan applications. Most of these positions are "line" or "operating" as distinguished from "staff."

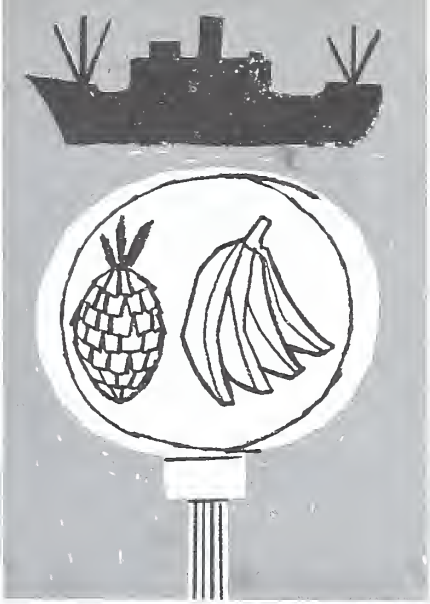
In selecting trainees, preference is given to applicants who demonstrate potential for meeting and dealing effectively with others and who are interested in ultimately accepting a field assignment outside of the Washington, D.C. area, as a field representative or an accountant. This particular work offers an excellent opportunity for practical application of formal education.

How To Apply

Application forms and additional information may be obtained from:

Director, Personnel Management Division
Rural Electrification Administration
U.S. Department of Agriculture
Washington, D.C. 20250

United States Department of Agriculture



Plant Quarantine Inspector

GS–5 and GS–7

■ Plant quarantine inspectors protect American agriculture by enforcing Federal plant quarantine and related regulatory orders to prevent the introduction and spread of injurious foreign plant pests. They examine incoming carriers, cargoes, baggage, and mail for plant pests and for restricted or prohibited plant material. They inspect, treat, and otherwise safeguard importations of plant materials.

Detailed Duties

In the course of their daily assignments, plant quarantine inspectors intercept economically important insects or diseased plant materials.

- An inspector searched a cargo vessel at a New York pier and intercepted Khapra beetles in the ship's stores.
- An inspector discovered mangoes infected with fruit fly larvae in the handbag of a passenger about to board a plane leaving Hawaii.
- An inspector in New Orleans assisted an importer in referring three orchid plants to the inspection station for treatment prior to their release.
- An inspector at a Miami airport seized a lemon tree for destruction.

Plant quarantine inspectors are employed in important ports of entry on the coasts of the United States; several inland traffic centers; Hawaii, Puerto Rico, the Virgin Islands; and several foreign countries. They cooperate in the enforcement of laws and regulations of other Federal agencies, and particularly with U.S. Customs Service and U.S. Immigration Service officers.

Inspectors work a scheduled 40-hour week, which may include Sunday and night assignments. When Saturday and Sunday are scheduled workdays, it is the policy to schedule time-off on two consecutive weekdays. Occasional overtime and holiday work is required. Overtime is paid for work scheduled in addition to regular tours of duty. Premium pay is allowed for holiday and night assignments.

Smart well-fitted uniforms are required while inspectors perform their duties. A cash allowance is made for the uniforms.

Physical fitness is important in plant quarantine inspector positions as much of the work is conducted out-of-doors and requires standing, stooping, and climbing.

Training

All new professional employees are appointed at New York City, where they participate in a 4-month training course. Usually, three courses are held each year; they begin in February, June, and October.

The training period includes academic training, demonstration laboratory work, and field visits. This is followed by rotational on-the-job training in the various operations of the Plant Quarantine Division. The training program is intended to minimize the time necessary for the new inspector to assume the full duties of his position.

The varied functional phases involved in efficient plant quarantine enforcement are stressed during this initial training period. Material covered includes orientation; public and interagency relations; applicable Federal laws, quarantines, rules and regulations; procedural and inspectional techniques; plant quarantine; entomology; plant pathology; and nematology.

Promotional Opportunities

Upon successful completion of the training, inspectors are assigned to a permanent duty station for additional on-the-job training. Trainees serve 1 year at GS–5 to qualify for promotion to GS–7. Following promotion to GS–7, the new inspector continues his training at the permanent duty station until he is capable of assuming the full responsibilities of the assignment, with promotion to GS–9.

Reassignments to other duty stations are made to broaden the inspector's experience and to benefit the service. There are numerous other opportunities for additional on-the-job training and experience to enable each inspector to develop his full potential and demonstrate his abilities.

The Plant Quarantine Division follows a promotion-from-within policy. Therefore, all division employees are in line for promotion to higher grades on the basis of the need of the division and demonstrated individual ability. Inspectors receiving initial appointments at GS–5 may be promoted to GS–9 after serving a total of 24 months (12 months in the training level as a GS–5 plus 1 year as a GS–7 at a port of entry).

Employment Specifications

To qualify for GS–5 plant quarantine inspector requires:

- Completion of a 4-year course leading to a bachelor's degree in an accredited college or university with a major in the biological sciences, including at least 20 semester hours in one or a combination of: entomology, botany, plant pathology, nematology, mycology, invertebrate zoology, horticulture, or closely related subjects; OR
- Coursework totaling 30 semester hours in biology and related natural and physical sciences including the 20 hours of specified coursework, plus appropriate experience and education which, when combined with the required courses, will total 4 years of education and experience and give a technical knowledge comparable to that which would have been acquired through successful completion of a 4-year college course.

To qualify for GS–7 plant quarantine inspector requires:

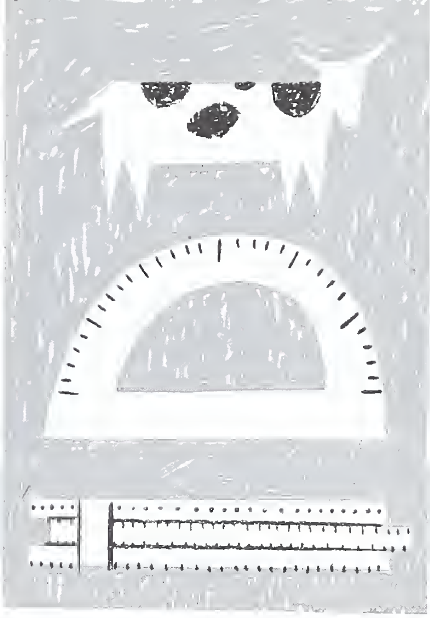
- One full year of graduate study (30 semester hours) or all the requirements for a master's degree, with major study in an appropriate field where the study is related to plant quarantine inspection work; OR
- One year of appropriate professional experience; OR
- Completion of a bachelor's degree within the past 2 years and superior academic qualifications indicated by overall college average, average in college major, class standing or election to national honor societies.

Employment Procedures

If you are interested in these positions, you may apply under the examination for Plant Quarantine Inspectors. Copies of this announcement are available in first- and second-class post offices, college placement offices, and from the Personnel Division, Agricultural Research Service, U.S. Department of Agriculture, Washington, D.C. 20250.

Range Conservationist

(FS)



GS–5 and GS–7

■ Range conservationists in the Forest Service are responsible for helping provide nationwide leadership in forest range conservation, development, and utilization. Their work centers on the National Forests and National Grasslands where they develop the 106 million acre range environment to its potential and manage it properly. By doing this, Forest Service range conservationists promote the stability of family size ranching units and local communities. In addition, they foster sound conservation practices on associated private lands.

Grazing National Forest System lands in 38 states are 7 million cattle and sheep owned by 20,000 rancher-farmers. Several million browsing elk, deer, and other wildlife also inhabit these lands. Hikers, trail riders, and wilderness and other forest visitors find recreation and esthetic and other outlets on these ranges.

The Job of the Range Conservationist

A typical day might find the range conservationist in the field making a range allotment analysis of one of the approximately 11,000 National Forest grazing allotments, developing plans for rehabilitating depleted range, supervising construction of water developments and fences, developing a rest-rotation system of grazing, or making impact studies to determine the suitability, condition, and trend of the vegetation and soil, and to determine the grazing capacity of the various management units. Another day might find him tabulating sheep, tagging or marking cattle as they enter the National Forest, or meeting with a stockmen's association or individual stockmen to discuss management plans.

In managing the range resource to conserve the land and its plant cover and to provide forage for domestic animals, the range conservationist must have a general knowledge of the related resource fields, such as water, timber, wildlife, and recreation. Such knowledge helps him to provide optimum sustained yield and multiple use management of all the resources on the lands for which he is responsible.

Career Opportunities

At present, over 600 persons with training in range management are employed by the Forest Service. These are range conservationists or foresters. Each year the Forest Service hires around 50 college graduates who have a background in range management. Entrance levels are normally at the GS–5 or GS–7 grade, depending on an individual's qualifications and experience. Promotions are based on ability and merit with the initial promotion usually following satisfactory completion of a year's service. Range management careers in the Forest Service extend through the GS–15 level.

On-the-ground range management in the Forest Service is carried out at the ranger district level. The grazing allotment is the basic management unit. The range or forestry-range graduate may be employed initially as a range conservationist responsible for range allotment analysis, as a member of a district ranger's staff, or he may be employed on a special range improvement project.

Advancement

The lines of advancement may take one of several courses, depending on the individual's qualities and abilities and his personal desires. Advancement from a position in the ranger district may be to a ranger's position with broad administrative responsibilities, or it may be to a specialized range staff position in a supervisor's office. With broader experience the range men may qualify for various staff positions in the supervisor's office and the regional office. Such positions may lead to the position of forest supervisor, and to responsible positions on the regional forester's staff and in the Washington office. To the man who desires to specialize in range science, there are opportunities for advancement as a range specialist at all levels of administration from the ranger district to the Washington office. Assignments are designed to provide broad training in range and multiple use management, with opportunities for transfer between technical and administrative positions. Specialized training in the field of range management, to prepare employees for advancement, is provided through forest or regional training schools, attendance at meetings of professional organizations, or on-the-job training.

Qualifications

A bachelor's degree in range management or a closely related field, such as forestry, agronomy, or animal husbandry, which includes sufficient course work in range management, will qualify the graduate for a GS–5 range conservationist. Undergraduate study in range conservation includes such subjects as plant taxonomy and systematics, soils and geology, plant and range ecology, animal husbandry, and range management and conservation. Entrance at the GS–7 level is possible if the applicant attained a master's degree or maintained a "B" average or better in college or graduated in the upper 25 percent of his class, qualified for an accredited honor society or attained other specified scholastic levels. Graduate study, advanced degrees, or professional experience may qualify him for entrance at higher levels.

For more information on Forest Service careers in range management, write to the Regional Forester, U.S. Forest Service, at one of the following addresses:

Federal Building, Missoula, Mont. 59801
Federal Center, Building 85, Denver, Colo. 80225
Federal Building, 517 Gold Avenue SW., Albuquerque, N. Mex. 87101
Forest Service Building, Ogden, Utah 84403
630 Sansome Street, San Francisco, Calif. 94111
Post Office Box 3623, Portland, Oreg. 97208
50 Seventh Street NE., Atlanta, Ga. 30323
633 West Wisconsin Ave., Milwaukee, Wis. 53203
Federal Office Building, Juneau, Alaska 99801

United States Department of Agriculture

Range Conservationist

(SCS)

GS-5 and GS-7

■ Range conservationists in the Soil Conservation Service (SCS) enjoy the satisfaction of working with people—all kinds of people—in the national program of soil and water conservation. Certainly one of the most attractive and appealing aspects of this work is that it takes place in the great outdoors. At any of several hundred locations in the Western States, the range conservationist does work that is vital to the welfare of all Americans. Conservationists protect and improve our heritage of vast grasslands that "grow" livestock for the dinner table; provide habitat for wildlife; and open up new recreation areas to meet America's growing demands.

Duties

Range conservationists make range-site studies to determine what a rancher can expect of his range—in kinds of plants and amount of forage. They classify the natural plant cover on each range site into the proper range condition class that assures its most effective and correct use.

The conservationist discusses his findings with the rancher, usually a cooperator with a soil conservation district that is organized under State law and operated by the landowners themselves. He helps the landowner develop a range conservation plan.

The purpose of this plan is to keep the land in uses that will conserve soil and water; to improve eroded, wornout soils and increase their productivity; to improve forage; to provide proper application of irrigation water; and to increase the yield of all the products of the land—livestock, cultivated crops, hay, woodland, wildlife, and recreation sites.

Range conservationists give technical help in installing conservation measures that are called for in the range conservation plan, such as reseeding, noxious plant control, water development, proper grazing, and developing recreation facilities.

Work on rangeland may be part of the work plan of a small watershed project. Conservationists help to stabilize the soil upstream and to manage water so that it runs off the land slowly and safely. This work on the land and the small water-holding structures built by SCS help prevent flooding and siltation, and thus save millions of dollars. The structures also provide water storage for irrigation, livestock, wildlife, recreation, and even municipal uses.

Opportunity for Advancement

New professional employees usually enter the Service at grades GS–5 and GS–7. Higher grade positions normally are filled by promoting someone already in the Service, through the SCS Career Development and Promotion Plan. Under this plan employees have the opportunity to develop their professional and management skills so that they may accept positions of greater responsibility. SCS provides intensive and specialized training under competent, experienced technical men, both on the job and in group-training centers.

Qualifications

You will need a college degree with a major in range management or range conservation, and with additional course work in the animal sciences, plant sciences, and soils. Specific qualification requirements are stated in the examination announcement for this position.

How To Apply

Ask the college placement officer or local postmaster for the announcement of the examination appropriate to the range conservationist in the Soil Conservation Service, and for an application blank. Send the application form to the Interagency Board of U.S. Civil Service Examiners responsible for the area in which you wish to work.

United States Department of Agriculture

Soil Conservationist

GS–5 and GS–7

■ Conservationists in the Soil Conservation Service (SCS) have an opportunity to work in rural and urban environments with people—all kinds of people—in the national program of soil and water conservation. In this the soil conservationist brings to these people the latest scientific and technical developments in soil and water conservation. There are several thousand work locations throughout the United States, Puerto Rico, and the Virgin Islands.

Duties

The work of the soil conservationist requires that he have technical knowledge in such fields as agronomy, range management, forestry, wildlife biology, fishery biology, engineering, soils, and farm management. With this background he is able to analyze conservation problems and recommend a planned program for the land.

A soil conservationist has the opportunity to obtain experience in all phases of soil and water conservation, or he may specialize in one field. Conservationists may be assigned to give technical help to a soil conservation district, usually the size of a county, that is organized under State law and run by the landowners themselves. He helps landowners and operators prepare conservation plans that provide for the best use and treatment of their land. He gives technical advice on installing the conservation measures that are called for in the plan, such as terracing; stripcropping; planting grass, trees, or wildlife food and cover; or establishing recreation facilities.

The soil conservationist gives assistance to local sponsoring organizations for land treatment and structural measures for flood prevention, fish and wildlife development, recreation, and agricultural and municipal water supply in watersheds. He gives assistance in planning resource conservation and development projects, in solving land and water resource problems, and in improving the economic well-being of an area.

Opportunity for Advancement

New professional employees usually enter the Service at grades GS–5 and GS–7. Higher grade positions normally are filled by promoting someone already in the Service, through the SCS Career Development and Promotion Plan. Under this plan, employees have the opportunity to develop their technical and management skills so that they can be promoted to positions of greater responsibility. SCS provides intensive and specialized training under competent, experienced technical men, both on the job and in group-training centers.

Qualifications

Soil conservationists need a college degree with a major in soil conservation or a closely related agricultural science, such as agronomy or soils.

How To Apply

Ask your college placement officer or local postmaster for the soil conservationist examination announcement and an application blank. Send your application to the Interagency Board of U.S. Civil Service Examiners responsible for the area in which you wish to work.

United States Department of Agriculture

Warehouse Examiner

(C&MS)

GS–5

▪ To the warehouse examiner goes the responsibility of safeguarding the abundant crops of our Nation which have been stored for future use. He guarantees that stored agricultural products worth billions of dollars are kept in good condition and will be delivered to their owners when needed.

Warehouse examiners are members of the Warehouse Service Branch of the Transportation and Warehouse Division, Consumer and Marketing Service. Their work consists of examining warehouses principally storing grain, cotton, and processed commodities. Headquarters offices are located in Atlanta, Ga.; Indianapolis, Ind.; Memphis, Tenn.; Minneapolis, Minn.; Omaha, Neb.; Portland, Ore.; Raleigh, N.C., and Temple, Tex. Although warehouse examiners are headquartered in these locations, their actual work stations may be located in any one of the States where a concentration of work exists.

Duties

The warehouse examiner periodically inspects the warehouse and commodities stored therein. He is an expert in auditing and taking inventory to find out what commodities should be on hand at a particular warehouse and what commodities are actually on hand. He determines, among other things, the suitability of the warehouse facilities and handling methods, the competency and reliability of warehouse personnel, the adequacy of the warehouseman's records, and the soundness of the warehousemen's business practices and financial position.

To perform the foregoing, he must be a diplomat. He must have sound judgment as well as the ability to meet and deal with warehouse owners and bank and commodity officials in obtaining required information and in enforcing rules and regulations. Those who like to travel, to deal with different people, and to meet new challenges will find the work of a warehouse examiner interesting and rewarding.

Training

Usually, the warehouse examiner starts at the GS–5 level although those with specialized experience and training may be eligible to start at the GS–7 level. After a short training period in the headquarters office, during which time he receives instruction in laws, regulations, procedures, and policies governing the nature and scope of his duties, he sets out on a job with an experienced

examiner. He gains most of his training through on-the-job experience under supervision. He is gradually given more difficult assignments, with less supervision, until he becomes a full-fledged examiner, capable of conducting an examination on his own.

Advancement

After a year, the examiner starting at the GS–5 level may be promoted to the GS–7 level where his training program on-the-job and in field headquarters continues. He may be promoted to GS–9 after a year as a GS–7. Those examiners who show supervisory and administrative talent, may advance to GS–11, GS–12, and GS–13 positions, which correspond to officer-in-charge and assistants in an area office. It is possible for outstanding individuals to be assigned to an administrative position in one of the national field offices or the Washington headquarters office at higher grade levels.

Employment Qualifications

You may qualify for the position on the basis of either appropriate experience or education or a combination of both. If you are qualifying on education alone, you must have a degree in general agriculture or in a specialized agricultural field or business administration. Applicants must pass the written test required in announcement No. 249B for warehouse examiners.

Employment Procedures

For additional information concerning a career as a warehouse examiner with the Consumer and Marketing Service, you may write to:

Field Operations Branch
Personnel Division
Consumer and Marketing Service
U.S. Department of Agriculture
536 South Clark Street
Chicago, Ill. 60605

Section III

PART

4

CAREERS IN RESEARCH SCIENCE

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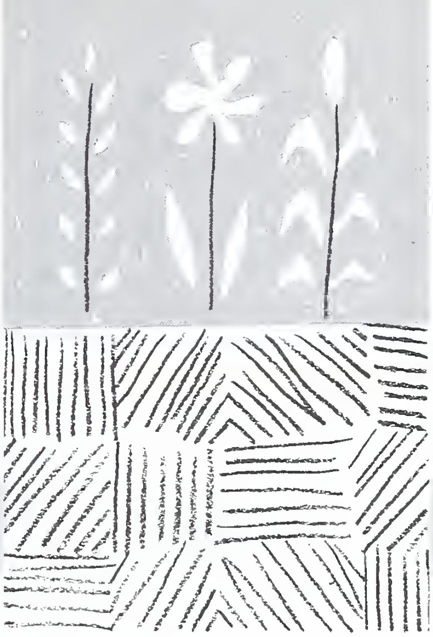


Agronomist

GS–5, 7, 9, 11, 12, 13, 14, 15

■ Agronomists conduct research on field crops involving varieties, breeding and selection, crop management, rotations, and weed control.

Detailed Duties

Agronomists plan field experiments, execute the plans by planting and harvesting according to the experimental designs, make critical field observations by systematic recording of notes, and complete the experiment by reporting results.

In the field of forage grasses, turf grasses, and legumes, they conduct research leading to the development of superior grasses and legumes, improved methods of establishment, and management practices that increase yield and quality.

- Agronomists develop new and improved methods of breeding, breed improved varieties, and evaluate the quality of wheat and rye varieties under study.
- Agronomists conduct basic research on the chemical and physical factors responsible for wheat and rye quality differences in varieties and on improved procedures for detecting these differences.
- Agronomists study diseases of barley, including identification, prevention, control, host-pathogen relationships, genetics of pathogens, and varietal resistance.
- Agronomists study mutagenic agents to induce genetic variability in barley and determine laws and mode of action of the mutation process.
- Agronomists conduct physiological and biochemical studies on the nature of hardiness in winter barley.
- Agronomists conduct agronomic and physiologic investigations of the relation of environment, pesticides, cultural practices, chemicals, and fertilizers on the growth, development, yield, and quality of barley.

Active research programs are underway on alfalfa, clover, special-purpose legumes, and grass with relation to use in forage and range management. Studies are made of management practices for use on turf grasses, home lawns, military sites, airports, roadsides, recreational areas, and cemeteries. Varieties are subjected to regional performance tests and evaluated for winter-hardiness, adaptability, and response to fertilizer.

Research is conducted on cotton and cordage fiber breeding. Much of the work in genetics and plant breeding is carried on in cooperation with experiment stations in the cotton growing areas of the Southern and Western States.

Agronomists with the Agricultural Research Service study the fundamental principles of plant, soil, and related sciences as they apply to problems of field crop improvement. This includes research on forbs used for forage, hay, tobacco, rubber plants and shrubs, sugar plants, as well as the cereal and grains, legumes, grasses, and cotton fibers just mentioned.

Agronomists in the Soil Conservation Service provide technical guidance to land owners and operators on agronomic phases of the soil and water conservation program; conduct field trials to evaluate adaptability and handling of grasses and legumes useful in soil and water conservation.

Promotional Opportunities

Advancement in research is based on scientific accomplishment. In research activities, professional employees may aspire to careers in research administration or may pursue their careers in the planning and conducting of research itself, without assuming administrative duties. Opportunities for advancement to the highest grades are excellent in all programs for those who merit it on the basis of productivity, initiative, ability, accomplishments, and other relevant factors.

Employment Specifications

Basic requirements for agronomist positions are the completion of all requirements for a bachelor's degree in an accredited college or university with a major in agronomy or closely related subjects, including 10 semester hours in crop production or plant breeding.

Agronomists with bachelor's degrees are usually appointed at GS–5 or GS–7; those with master's degrees at GS–7 or GS–9; and those with doctor's degrees at GS–11 or GS–12. Graduates meeting "quality" requirements may be eligible at the higher grade in each case.

At the GS–7 level the applicant must have at least 1 year of professional experience showing ability to do research work or 1 year of graduate study. However, applicants who have completed bachelor's degrees within the past two years may qualify for GS–7 if they have superior academic qualifications. This may be indicated by their overall college average, average in their college major, their class standing, or their election to national honor societies.

GS–9 requires at least 2 years of experience showing knowledge and understanding of research techniques and of the scientific principles applied in their use.

GS–11 requires at least 3 years of successful professional experience showing the ability to work independently and perform research work leading to publication in recognized scientific journals or similar media.

For positions at higher levels—GS–12, 13, 14, and 15—progressively responsible experience is required. These positions require experience which shows the ability to conduct the most difficult research. They require outstanding competence in a scientific field and high ability in planning, organizing, directing, and interpreting difficult research projects.

Graduate study may be substituted for experience as follows:

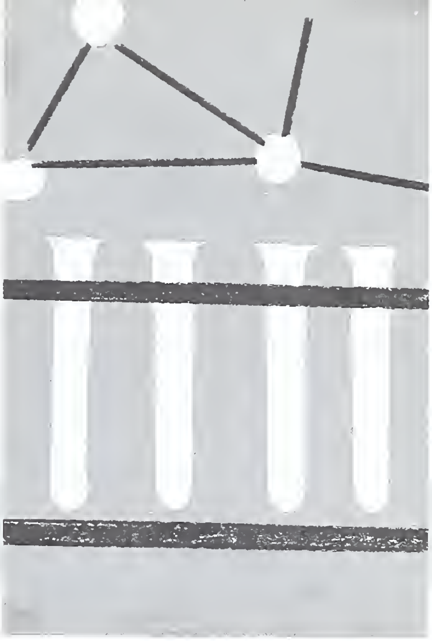
- One year of graduate study may be substituted for 1 year of professional experience and qualifies the applicant in full for GS–7.
- Two years of graduate study may be substituted for 2 years of professional experience and qualifies the applicant in full for GS–9.
- Completion of all requirements for the doctor's degree qualifies the applicant in full for GS–11.

Because of the complexity of modern research, ARS places special emphasis on the recruitment of well-qualified scientists with graduate training, preferably through the doctorate level. Some high-quality graduates with bachelor's degrees are employed for research work, but they are encouraged to pursue formal graduate training.

Employment Procedures

If interested in these positions, you may apply under the examination announcement for Agricultural Research Scientists. Copies of this announcement are available at first- and second-class post offices, college placement offices, and from the Personnel Division, Agricultural Research Service (or Soil Conservation Service), U.S. Department of Agriculture, Washington, D.C. 20250.

United States Department of Agriculture



Chemist

GS–5, 7, 9, 11, 12, 13, 14, 15

■ Chemists find new uses for farm products; develop new fungicides and pesticides; seek to protect crops and livestock against diseases and insects; and discover new ways to protect stored products against deterioration or infestation.

Detailed Duties

Some chemists study the composition of farm products. Others prepare new substances from compounds in farm products, so that new, useful products can be made from materials that would otherwise be wasted. Others study the metabolism of plants and animals for a better understanding of growth processes, leading to an improvement in production. Also, chemists help to find out how insecticides and fungicides work, so that still better ones can be developed.

Several illustrations of work being done by chemists follow:

- Chemists work as part of research teams studying forage crop management. They carry out chemical determinations, including analyses for nitrogen, chromogen, chromic-oxide, sugars, and other carbohydrate fractions on plant materials and fecal samples from pasture trials.
- Chemists plan and conduct laboratory, greenhouse, and controlled environment research on the movement, persistence, and inactivation of pesticides in soils.
- Chemists develop new procedures to isolate flavoroids of citrus fruits in quantities sufficient to establish their identities, chemical reactivities, and pharmacological activities.
- Chemists seek to improve stability of linolenic acid, a component of soybean oil, without altering the highly desirable characteristics of the oil.
- Chemists evaluate the components of wild and cultivated plants from all over the world to find pulp fibers and new oils, proteins, and plant germs.

Location of Jobs

Chemists take an active and responsible part in most research projects conducted by the Agricultural Research Service. Many chemists employed by this agency are located at the Beltsville Agricultural Research Center, Beltsville, Md. Divisions located at Beltsville include those concerned with farm research, nutrition and consumer use, and regulatory programs.

Excellent opportunities are available to chemists in the laboratories of USDA's four Utilization Research and Development Divisions.

The Eastern Utilization Research and Development Division is located at Wyndmoor, Pa. (near Philadelphia). Its laboratories are working on animal fats and proteins; dairy products, meat, hides, and leather; allergens; and plant products, including fruits and vegetables.

The Southern Utilization Research and Development Division is located at New Orleans, La. Scientists in Southern's Oilseed Crops Laboratory seek to develop new or improved industrial oil products. The Food Crops Laboratory studies the chemical composition of citrus fruits and selected vegetables. The Cotton Finishes Laboratory conducts research designed to develop wash and wear cottons and cotton fibers that resist sunlight, heat, rot, mildew, weather, soil, water, oil, or flame.

The Northern Utilization Research and Development Division is located in Peoria, Ill. Scientists are conducting research in (1) the organic synthesis of new carbohydrate and lipid derivatives; (2) structure and analyses of natural products; (3) rheological properties of solutions of polysaccharides and proteins; (4) molecular properties of starches, proteins, and other natural polymers; (5) synthesis of new polymers from carbohydrates, lipids, amino-acids or peptides; (6) rearrangement of glycerides and separation of specific fatty acids and glycerol esters; and (7) kinetics and mechanism of selective catalytic hydrogenation of polyunsaturated fats.

The Western Utilization Research and Development Division is located at Albany, Calif. (San Francisco Bay area). Its scientists are engaged in research on the transformations of fruit and vegetable pigment contributing to the loss of color and taste in processed foods. Also, they isolate, identify, and characterize tannins, flavoroids, coumarins, and other plant constituents that cause unusual physiological responses in man or animals. Western's scientists study the polymerization, alkylation, esterification, and other protein reactions of wool and mohair fibers. Research is underway on derivatives of fatty acid constituents, with evaluation for possible industrial uses.

Scientists with the Agricultural Research Service have the opportunity to work in specially designed laboratories with the most modern equipment. Association with outstanding scientists broadens each scientist's research horizons and develops his individual capabilities.

Promotional Opportunities

Advancement in research is based on scientific accomplishment. Professional employees may aspire to careers in research administration or may pursue careers in the planning and conducting of research itself, without assuming administrative duties. Opportunities for advancement to the highest grades are excellent for those who merit it on the basis of initiative, ability, accomplishment, and other relevant factors.

Employment Specifications

Basically, applicants must have successfully completed a 4-year curriculum in an accredited college or university with a major in chemistry. The study must include at least 30 semester hours in analytical chemistry, both quantitative and qualitative, and either advanced inorganic chemistry, biochemistry, organic chemistry, or physical chemistry.

Chemists with bachelor's degrees usually are appointed at grade GS–5 or GS–7 and those with master's degrees at GS–7 or GS–9. Chemists with doctor's degrees are appointed at GS–11 or above. Graduates who can be classified as academically superior may qualify at the higher levels.

Because of the complexity of modern research, ARS places special emphasis on recruiting well-qualified scientists with graduate training, preferably through the doctorate level. Some high-quality graduates with bachelor's degrees are employed for research work, but they are encouraged to pursue formal graduate training.

Employment Procedures

If you are interested in these positions, request information about examination and employment procedures from the Personnel Division, Agricultural Research Service, U.S. Department of Agriculture, Washington, D.C., 20250.

United States Department of Agriculture

Entomologist

(Entomology Research)

GS–5, 7, 9, 11, 12, 13, 14, 15

■ Entomologists in the Agricultural Research Service conduct studies in insect biology, ecology, morphology, and taxonomy. They perform research on the abundance and distribution of insects; cultural, mechanical, biological, and chemical controls; plant resistance to insect attack; and insect transmission of plant diseases.

Detailed Duties

At the Beltsville Agricultural Research Center, entomologists study problems related to the protection of man, animals, and plants from the attacks of harmful insects and to the increased usefulness of beneficial insects. As only a small part of Federal research in entomology is conducted at the Center, they supervise the activities of about 100 entomology research laboratories located throughout the United States.

- Entomologists investigate the systematics of the larvae states of Lepidoptera to develop methods of distinguishing between many kinds of larvae and to show their interrelationships.
- Entomologists study the effect of light and photoperiod on insect growth, metamorphosis and diapause, and the chemistry and biochemistry of insect visual pigments, including the effect of nutrition on photo-response.
- Entomologists study the systematics of Homophera-Coccoides to develop methods for discrimination among species and their subdivisions, grouping of species to form higher taxa that reflect the phylogenetic relationships of the elements involved, and the interpretation of the significance of the accepted groupings.
- Entomologists study the biology, ecology, and control of insects and mites affecting vegetables and ornamental plants in the greenhouse and the relationship of insects to the spread of virus diseases of vegetables, berries, and ornamental plants.

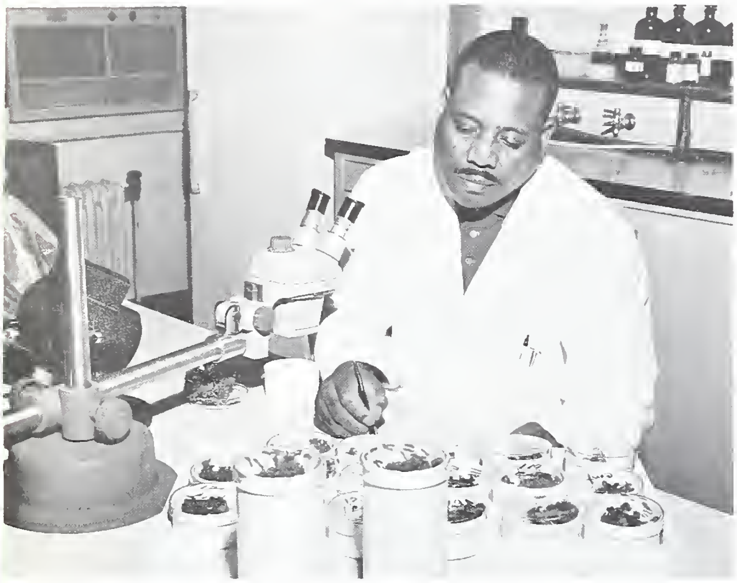
Some of the most imaginative work in agriculture in recent years has been done by entomologists. Teamed with other scientists, they developed a sterile mating technique for reducing and eventually eliminating the screw-worm population of the Southeast. This technique involved mass rearing of flies in a laboratory, subjecting them to radioactive cobalt, and releasing them in huge quantities. Other means for sterilization are being tested and possible applications to the control of the housefly are being investigated.

Entomologists are proposing biological methods of control for other insects. These include the release of predator insects or specific diseases that will kill the pest, but otherwise be harmless. Milky spore disease has been found effective in controlling Japanese beetles. Methods that avoid the use of insecticides and eliminate possible residues make them highly desirable and attractive to producers.

The association with outstanding scientists broadens each scientist's research horizons and expands his individual capabilities. Contacts and collaboration with leaders in industry, scholars from academic circles, and scientists at widely known research centers stimulate professional growth of ARS scientists and enrich ARS research programs. Inservice training through seminars, meetings, and other techniques is common.

Promotional Opportunities

Advancement in research is based on scientific accomplishment. Professional employees may aspire to careers in research administration or may pursue careers in the planning and conducting of research itself, without assuming administrative duties. Opportunities for advancement to the highest grades are excellent in all programs for those who merit it on the basis of productivity, initiative, ability, accomplishments, and other relevant factors.



Employment Specifications

Basically, applicants must have successfully completed a 4-year curriculum in an accredited college or university with a major in entomology or invertebrate zoology, with 16 semester hours of entomology.

At the GS–7 level the applicant must have at least 1 year of professional experience which shows ability to do research work or 1 year of graduate study. However, applicants who have completed bachelor's degrees within the past 2 years may qualify for GS–7 if they have superior academic qualifications. This may be indicated by their overall college average, average in their college major, their class standing, or their election to national honor societies.

GS–9 requires at least 2 years of experience showing a knowledge and understanding of research techniques and of the scientific principles applied in their use.

GS–11 requires at least 3 years of successful professional experience showing the ability to work independently and to perform research work leading to publication in recognized scientific journals or similar media.

For positions at higher levels—GS–12, 13, 14, and 15—progressively responsible experience is required. These positions require experience which shows the ability to conduct the most difficult research. They require outstanding competence in a scientific field and high ability in planning, organizing, directing, and interpreting difficult research projects.

Graduate study may be substituted for experience, as follows:

- One year of graduate study may be substituted for 1 year of professional experience and will qualify the applicant in full for GS–7.
- Two years of graduate study may be substituted for 2 years of professional experience and will qualify the applicant in full for GS–9.
- Completion of all requirements for the doctor's degree will qualify the applicant in full for GS–11.

Entomologists with master's degrees are usually appointed at grades GS–7 or GS–9; those with doctor's degrees are appointed at grades GS–11 or GS–12. Graduates meeting "quality" requirements may be eligible at the higher grade in each case.

Because of the complexity of modern research, ARS places special emphasis on recruiting well-qualified scientists with graduate training, preferably through the doctorate level. Some high-quality graduates with bachelor's degrees are employed for research work, but they are encouraged to pursue formal graduate training.

Employment Procedures

If you are interested in these positions, you may apply under the examination announcement for Agricultural Research Scientists. Copies of this announcement are available in first- and second-class post offices, college placement offices, and from the Personnel Division, Agricultural Research Service, U.S. Department of Agriculture, Washington, D.C. 20250.

Entomologist

(Stored Products Insects Research)

GS–5, 7, 9, or 11

■ The work of an entomologist in agricultural marketing research may be pursued in a Government laboratory or under actual commercial conditions in the packing sheds, storage facilities, transportation vehicles, and markets. It may take him any place in the country where USDA's Agricultural Research Service (ARS) is helping to solve marketing problems.

Duties

The Market Quality Research Division has laboratories for stored product insect research at Richmond, Va.; Tifton and Savannah, Ga.; Manhattan, Kans.; Houston, Tex.; Watseka, Ill.; and Fresno, Calif. The nature of the problems being studied governs the composition of the research staff at each laboratory. For instance, chemists do research on pesticide residues that may result from treatments. The ARS entomologist frequently works as a member of a team representing several scientific disciplines.

The marketing system that brings farm and food products from producer to consumer in these United States is complex. Working within it, the entomologist studies the insects that damage grain, fibers, tobacco, dairy products, and dried fruit while they are in storage; while they are in transit by rail, truck, ship, or aircraft; and while they are being marketed in the cities. He determines which insects are important, identifies them, and learns where they come from and how they get into the stored product. Finally, he develops practical methods to eradicate the insects and to reduce the damage done by them.

As he pursues his research, he meets and works with members of the marketing industry, State universities, and State offices concerned with agricultural marketing. He often works closely with biological scientists who are concerned with maintaining the quality of farm products in marketing channels or with other USDA personnel who are concerned with grade standards or inspection requirements for farm products.

An important part of his work is to tell the marketing industry the results of his research. He does this through Marketing Research Reports and other series of publications published and distributed by USDA, and through articles in professional journals and technical magazines. His report, with the technical data that support his conclusions, must tell clearly and effectively how the marketing industry can use his results and what can be gained by using them. He also gets his information out through personal contacts, speeches, articles for the trade press, or other media used by USDA.

The entomologist is provided office and laboratory space and secretarial services as his work demands. The laboratories are equipped with standard entomological apparatus, such as microscopes, incubators, rearing chambers, fumigation and spray equipment, and facilities for making chemical analyses. He has special equipment for use in the tests he conducts in packing sheds, commercial storages, grain elevators, transportation vehicles, and markets.

Because his research is conducted both in the laboratories and under actual commercial conditions, the ARS entomologist is afforded the

opportunity for basic studies and for the practical application of his findings to the solution of commercial problems. His work can take him to various parts of the United States and, sometimes, to overseas ports.

Advancement

Promotion opportunities are excellent for entomologists who demonstrate initiative and the ability to analyze the problems they encounter and to plan and conduct productive research.

They are promoted to higher grades as they demonstrate ability to assume greater responsibility and to conduct more complex research. A competent and productive entomologist who enters the Agricultural Research Service at the GS–5 or GS–7 level may expect to reach GS–12 or GS–13 in 7 to 10 years. Exceptionally capable entomologists may progress faster and reach a higher grade.

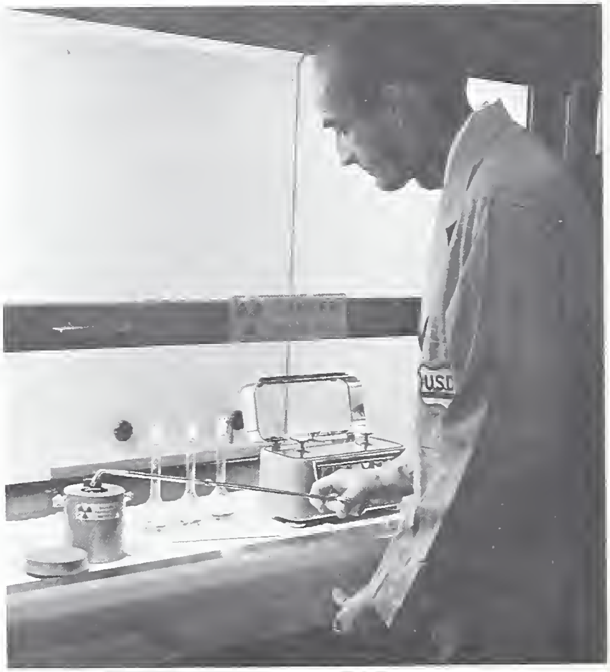
Employment Specifications

Entomologists with a bachelor's degree are usually appointed to grade GS–5 or GS–7, and those with a master's degree to GS–7 or GS–9. Entomologists having a doctor's degree are appointed to GS–11 or GS–12.

Prior to appointment you must receive a rating on an unassembled examination based on your education and experience as recorded on a Standard Form 171. Obtain further information from Civil Service Announcement No. WA–7–17, Agricultural Research Scientists. Prior to selection, a personal interview is required with a staff member in Washington, D.C., or one of the field stations previously listed.

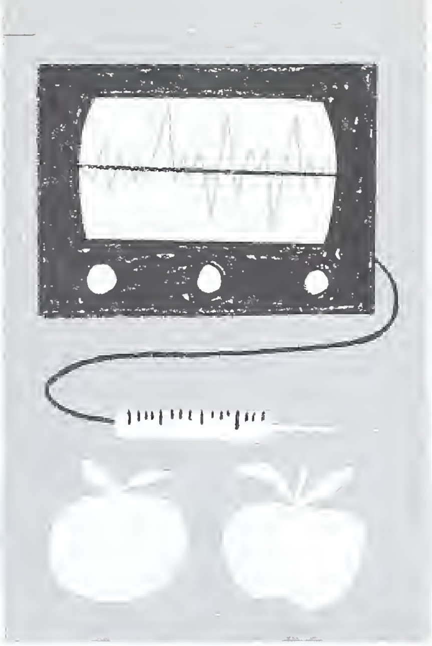
Employment Procedures

For further information, you may write to the Personnel Division, Employment Section, Agricultural Research Service, U.S. Department of Agriculture, Washington, D.C. 20250.



United States Department of Agriculture

Food Technologist Marketing



GS–7, 9, 11, and 12

■ We have learned that we can pass a beam of ordinary light through apparently opaque objects. This can tell us many things; for example, the internal color of fruits and vegetables which may be related to maturity or ripeness and the presence of internal defects, such as water core in apples or hollow heart in potatoes.

Duties

The food technologist working with the Market Quality Research Division of USDA's Agricultural Research Service (ARS) plays an important role in exciting developments like this. His job is to take such basic research findings and develop the practical means of applying them.

Usually he works as part of a team which includes several scientific disciplines. At various times, he may be working with engineers, bacteriologists, chemists, plant physiologists, plant pathologists, or seed technicians.

One of these teams was responsible for developing the electronic blood-spot detector for eggs. This spectrophotometric device, by eliminating the necessity for individual handling of each egg, made mechanization feasible in the grading and packing of large lots of uniformly high-quality eggs.

Since then, ARS marketing researchers have put this same principle to work in developing other instruments that can "see" inside fruits and vegetables. Such work brings the American consumer some of the best, uniformly high-quality food available anywhere in the world and helps keep the cost down at the same time.

In general, the ARS food technologist is a researcher who applies science and engineering to the processing, packaging, distribution, preparation, and utilization of foods.

- He creates methods to measure and safeguard the wholesomeness and eating quality of the great variety of foods available today.
- He conducts experiments leading to basic improvements in food quality and devises techniques for predicting and extending the maximum storage periods for foods.
- He studies the effect of processing, packaging, and distribution on food quality, and how these processes may be improved to protect the quality.
- He publishes his findings in Government bulletins, professional journals, and trade papers so that the food industry will learn about them and put them into practical use. He may also spread this information through personal contacts and through talks at professional and trade association meetings and on radio and television.

ARS food technologists work in laboratories at Beltsville, Md., and Athens, Ga., where they also are provided office space and secretarial services. The laboratories are equipped with standard apparatus, such as microscopes, culture equipment, incubators, autoclaves, Warburgs, PH meters, potentiometers, colorimeters, centrifuges, gas analyzers, and taste-panel facilities. Also, there are walk-in storage rooms in which temperature and humidity can be controlled in simulated storage and transportation tests.

In addition, food technologists conduct research under actual commercial conditions in packing sheds, storage facilities, transportation vehicles, and markets. Special equipment is provided for use in such facilities, including a trailer equipped as a mobile laboratory for bacteriological work. The food technologist often has an opportunity to travel to various parts of the United States, and sometimes to overseas ports.

Employment Specifications

To qualify for a position as a food technologist, you will need a degree in food technology, biology, physics, chemistry, or a closely related field, with at least 20 semester hours of food technology.

Advancement

Promotional opportunities are excellent for the food technologist who demonstrates initiative and the ability to analyze problems and to plan and conduct productive research. Food technologists with a master's degree may be appointed at grade GS–7 and occasionally at GS–9. Those with a doctor's degree may be appointed at GS–11 and occasionally at GS–12. Promotions to higher grades are made when the researchers demonstrate ability to assume greater responsibility and conduct more complex research. A highly competent and productive food technologist may expect to reach GS–12 and GS–13 within an average of 2 and 6 years, respectively. Exceptionally outstanding food technologists may progress faster and to an even higher grade.

Employment Procedures

For further information, you may write to the Personnel Division, Employment Section, Agricultural Research Service, U.S. Department of Agriculture, Washington, D.C. 20250.

United States Department of Agriculture

Forest Service Research

GS–5, 7, 9, 11, 12

▪ The Forest Service is responsible for promoting conservation and proper utilization of the one-third of our country that is forest land. Seeking the unknowns and improvements of forestry with basic and applied research is integral to this responsibility, and Forest Service research today employs men and women from more than 40 different scientific and professional disciplines. Their primary goal is the discovery of new and better ways to protect, preserve, and fully utilize the country's forest resources.

Kinds of Research

Here are some features which Forest Service researchers have found attractive:

- Advancement to higher grade jobs in either scientific research or research administration.
- Opportunity to pursue significant research problems.
- Encouragement to use initiative and ingenuity in individual research projects.
- Publication of results.
- Assistance with comprehensive graduate studies.
- Association with recognized leaders in science and conservation.
- On-the-job training tailored to suit the needs of the individual.
- Affiliation with scientific professional societies.

The Forest Service is vitally concerned with providing a climate for serious advanced research in widely varying fields. About two-thirds of the 80 research units are located on college campuses where modern laboratories and extensive libraries are available. The college atmosphere and association of employees with eminent scientists on campus help stimulate creative thinking and development and provide excellent opportunities for continuing academic work toward advanced degrees, and for postdoctoral work both here and abroad.

Today's Forest Service research scientist enjoys opportunities for rapid, intense, and diverse personal development. Research is underway in every section of the country, including Alaska, Hawaii, and Puerto Rico. Forest Service researchers also provide advisory services to foreign countries in the expanding field of international forestry.

Career opportunities are based primarily on the scientist's interests and aptitude. He can devote maximum time and attention to his profession because administrative personnel handle business matters involved in research projects. Most research is done on a project basis which stresses individual involvement, development, and advancement of each person as a member of a research team.

Training and work assignments are planned to develop professional competence. The research scientist is encouraged and aided in continuing his professional associations. Promotional opportunities are excellent, and are determined primarily by a man's ability and merit. Opportunities in forestry research are in these categories:

Forest Products Utilization Research is conducted at the Forest Products Laboratory in Madison, Wis., and regional forest experiment stations. Research problems in many specialized, discipline-oriented project areas are attacked in depth at the Forest Products Laboratory. Research aimed at developing and synthesizing knowledge from many specialized fields into practical applications, including housing, new products development, more efficient processing methods, and entire wood conversion systems, is carried on by regional forest experiement stations at 15 locations in the United States.

Career research scientists representing many disciplines—forest products chemists, physicists, engineers, technologists, botanists, entomologists, and physiologists—conduct a diversified yet coordinated program of basic, applied, and developmental research on wood. Scientists are encouraged to plan projects of their own choosing within the framework of the organization's mission. Cooperation with other research scientists throughout the world, with educators at nearby universities, and with technical representatives of wood-using industries is encouraged, as is publication of research results.

Forest Recreation Research. Recreation has a major role in America's forest-land resources. More than 150 million visits are made annually to the national forests. Forest recreation research aims are to help provide and improve the forest recreation opportunity for increasing millions of Americans and coordinate recreation use with other demands on forest resources. The forest recreation research team is made up of social scientists, ecologists, landscape architects, soil scientists, foresters, and economists. Specific research tasks deal with (1) recreation visitor motivations, preferences, and trends; (2) the management of recreation site soils and vegetation; (3) esthetics and landscape management; and (4) economic opportunities and impacts.

Forest fire research in recent years has saved millions of dollars in natural resources that otherwise would have been lost in forest fires. However, a need for refinement of methods and development of new equipment and techniques still exists. Forest fire researchers are primarily interested in fire prevention, behavior, and suppression.

Fire prevention becomes more important as recreational use of forests multiplies. Sociologists on the research staff are interested in man-caused fires and their prevention.

Scientists in fire behavior research work on the basic physical and chemical mechanics of the burning process. Many of these researchers have graduate training in engineering, meteorology, or the physics and chemistry of combustion of cellulose fuels.

Fire suppression research is advancing the knowledge of the effective use of water and chemical retardants in firefighting.

Watershed management research is concerned with the basic problems of the quality and quantity of water coming from forest and range lands and with the protection and utilization of forest soil and water resources. Watershed management research involves many scientific disciplines, including plant sciences, hydrology, engineering, meteorology, soil science, geology, snow physics, and forestry. All forest-land uses, such as timber production, grazing, forest recreation and reservoir developments, comprise the problem of watershed management.

Watershed research is concerned with that part of the hydrologic cycle that can be managed through manipulation of vegetation, soil, and water storage. How much of the rainfall enters the soil? Does this water become streamflow? Is it evaporated? Is it used by vegetation? Or does it become part of the ground water? How can the forest-land manager manipulate the forest cover to cause the water from a watershed to behave as he wants? To answer these questions, the watershed scientist studies the relationship of soils and plants to water, the effects of climate, geology, and topography on erosion and water yield; and how factors involved can be combined to predict results of management practices on quality and quantity of water.

Forest engineering researchers work to improve the efficiency and performance of forest operations, such as harvesting, transportation, and other materials-handling jobs. They design systems in which efficiency and performance must meet the needs of forestry and forest-land management for future years.

Engineers must achieve radical improvement over present systems. New concepts and technological breakthroughs are needed in all engineering phases of forestry.

Forest engineering research laboratories are located at colleges or universities, and close cooperation is maintained with engineering schools and laboratories. Engineers in these fields—agricul-

tural, civil, mechanical, industrial, and hydraulic—work with mathematicians, physicists, and economists in a team approach to problem analysis and systems design.

Wildlife habitat researchers in the Forest Service determine how forest and range lands should be managed and improved to meet wildlife requirements and to support maximum game and fish populations in harmony with other uses. They develop wildlife management techniques for the most efficient use of resources, and develop methods for revegetating depleted habitats. They also determine the effects of silvicultural and harvesting practices on wildlife habitat, the effects of wildlife on timber production, and interrelations of livestock and wildlife in order to obtain optimum production of both. Research is conducted at numerous locations throughout the country since wildlife species, vegetation types, soil, topography, and climate vary widely.

Wildlife biology, plant ecology, and range conservation are the primary disciplines of scientists in wildlife habitat research; there are also opportunities for persons trained in forestry, plant physiology, agronomy, genetics, and fish biology. Much of this research is performed cooperatively with State fish and wildlife conservation agencies.

Range management researchers work to improve the management of livestock forage resources on the nonagricultural lands. To do this, they must develop better systems of grazing management, learn how plants grow and why they grow where they do, and determine how much grazing the plants can withstand without depressing their growth and reproduction. They determine how to replace poor forage plants with good forage plants by seeding. And they learn the best ways to harmonize livestock grazing with forestry, recreation, watershed management, and wildlife management.

Range science, plant ecology, plant physiology, and plant classification are the primary disciplines of scientists in range management research. Training in soils, chemistry, animal nutrition, forestry, and biometry is also useful.

Timber management research is concerned with the culture of trees and forests for timber, shelterbelts, wilderness, environmental values, gum naval stores, and many other forest products and uses. Research in measurements and management planning provide guides for harmonizing the many uses that may be made of forests and related lands. Forest genetics research is concerned with breeding more useful varieties of forest trees. This includes the development of fast growing, insect and disease resistant trees for timber, shelterbelts, gum yields, maple sap, and other uses.

Specialists in silviculture, forest genetics, plant physiology, mathematics, biochemistry, soils, forest ecology, plant anatomy, and related areas find employment in solving timber management problems. There are opportunities for individual research as well as team research under the guidance of experienced investigators.

Forest insect researchers are seeking new knowledge concerning the insects that are destructive to forest trees and products. The hope is that such knowledge will lead to development of improved detection and control methods that can be used to reduce the tremendous losses caused by insects in our forests each year.

Forest insect research is diversified. In part, it deals with the habits, behavior and ecology of important species; with parasites, predators, and diseases of major species; with earlier detection of incipient outbreaks through remote sensing; with biological, chemical, and silvicultural control; and with new approaches such as insect sex attractants, chemosterilants, and irradiation. It includes basic and applied research involving highly specialized laboratory equipment and controlled experiments as well as research in forested areas under natural conditions.

Scientists represent numerous disciplines; entomology, forestry, bacteriology, chemistry, insect pathology, toxicology, and physiology are just a few.

The objective of **Forest disease research** is to develop methods of reducing disease losses in

timber production, to multiply uses of the entire tree and forest resource, and to increase the service life of forest products.

Forest disease research is exceedingly complex. It involves investigation of the life history of pathogenic organisms—fungi, viruses, bacteria, nematodes, and mistletoes. It also includes study of the nature of nonparasitic agents like air and soil pollutants, nutritional imbalances, and climatic variations.

Forest disease research requires a team approach of scientists in many disciplines: pathology, mycology, nematology, meteorology, biochemistry, ecology, physiology, and soil science. Graduate study is essential for career advancement. Currently, over three-fourths of all forest disease researchers have a Ph. D. degree or are working toward it.

Forest Economics and Marketing Research is concerned with the economic and marketing problems of the Nation's forest owners, wood processors, and public forest land administrators. Economics research is oriented toward the development of criteria for the allocation of the hundreds of millions of dollars spent annually for the protection, development, and production of timber and other resources on forest lands. The development of guides for integrating and balancing multiple uses of forest land to meet rapidly expanding public demands for timber, water, wildlife, recreation, and other forest related goods and services also is receiving special emphasis.

The objectives of marketing research are to increase incomes of woodland owners and timber processors, to stimulate industrial development and economic growth in rural areas, and to provide consumers with better products at lower prices. It includes studies aimed at (1) measuring current and potential demands for forest products, (2) evaluating ways of reducing costs in the harvesting, processing, distribution, and use of timber products, and (3) appraising the resource and market potentials for the development of new or the expansion of existing forest industries.

Close coordination and cooperation is maintained with the research and action programs of other divisions in the Forest Service and various departments and bureaus such as the Economic Research Service, the Office of Business Economics, and the Bureau of the Census. Research in economics and marketing is intellectually demanding and provides a challenging career for people with advanced training in forest economics, statistics, and related sciences.

Qualifications

Men and women interested in Forest Service research should have good academic records. A degree above the bachelor's level is helpful.

Minimum qualification requirement for GS–5 is a bachelor's degree from an accredited college or university, with major study in an applicable or closely related field. Most research positions begin at grade GS–7. An applicant is eligible for GS–7 if he has done graduate work, or has professional experience or a "B" average in overall undergraduate college work or in his major. He also qualifies for GS–7 if he is a member of an accredited honor society, has a master's degree in forestry, graduated in the upper 25 percent of his class, or has other specified scholastic achievements. If one has the appropriate degrees and experience one can qualify for grades up to GS–12.

You may be eligible for one of these positions if you have a degree in social, biological or physical science, engineering, or mathematics:

SOCIAL SCIENCE: Economist, sociologist.

BIOLOGICAL SCIENCES: Entomologist, fishery biologist, geneticist, insect pathologist, mycologist, plant taxonomist, plant pathologist, research forester, soil scientist, wildlife biologist.

ENGINEERING: Agricultural engineer, chemical engineer, civil engineer, electronic engineer, hydraulic engineer, mechanical engineer.

PHYSICAL SCIENCES: Chemist, forest products technologist, geologist, meteorologist, physicist, hydrologist.

MATHEMATICS: Mathematical statistician.

For more information write to the Director, Forest and Range Experiment Station, U.S. Forest Service, in the following cities: Ogden, Utah; St. Paul, Minn.; Upper Darby, Pa.; Portland, Oreg.; Berkeley, Calif.; Fort Collins, Colo.; Asheville, N.C.; New Orleans, La.; or to the Director, Forest Products Laboratory, Madison, Wis.; or the Institute of Tropical Forestry, Rio Piedras, Puerto Rico.

United States Department of Agriculture

Geneticist

GS-5, 7, 9, 11, 12, 13, 14, 15

Geneticists test and apply genetic principles to plants, animals, and poultry to determine the mode of inheritance of genetic characters and to develop more effective selection procedures for improving them.

Detailed Duties

Geneticists with the Agricultural Research Service (ARS) examine the interaction of genetic characters, their environment, and the basic physiological and anatomical principles involved. They also evaluate the possible use of induced polyploidy and irradiation in crop improvement and investigate the cytogenetics and cytotaxonomy of plants.

- Plant geneticists study the relative magnitude of additive, dominance, and epistatic variances; the development of genetic theory and the design of experiments which will permit estimation of the desired parameters; the comparison of efficiencies of different breeding procedures; and the collection and statistical analysis of experimental data relating to corn improvement.
- Plant geneticists investigate the linkage relationship of genes for rust resistance to genes controlling other plant characteristics and the development of techniques for transferring genes for resistance from related species or genera to commercial varieties of wheat.
- Poultry geneticists study the immunogenetic response, the genetics of blood groups, and their relationship to productive traits in poultry, and the development and evaluation of new methods and procedures for studying hereditary differences in poultry.
- Poultry geneticists determine the chromosomal constitution of normal and parthenogenetic turkeys, chickens, and hybrids, and the influence of environmental and physiological factors on the incidence of parthenogenesis.
- Animal geneticists do basic and applied research in the field of beef cattle breeding. This research involves developing methods of measuring economically important traits in beef cattle; comparing the effectiveness of different breeding systems, such as mass selection, inbreeding and line crossing, and crossbreeding, in effecting improvements in productivity; and determining the mode of inheritance of qualitative genetic defects and devising genetic methods for most rapid elimination of such characteristics. They also work toward the discovery and development of practical measures for prevention and control of scrapie and other animal diseases.

The association with outstanding scientists broadens each scientist's research horizons and expands his individual capabilities. Contacts and collaboration with leaders in industry, scholars from academic circles, and scientists at widely known research centers stimulate professional growth of ARS scientists and enrich ARS research programs. Inservice training through seminars, meetings, and other techniques is common.

Promotional Opportunities

Advancement in research is based on scientific accomplishment. Professional employees may aspire to careers in research administration or may pursue careers in the planning and conducting of research itself, without assuming administrative duties. Opportunities for advancement to the highest grades are excellent in all programs for those who merit it on the basis of productivity, initiative, ability, accomplishments, and other relevant factors.

Employment Specifications

Basic requirements for geneticist positions are the completion of all requirements for a bachelor's degree in an accredited college or university with a major in genetics or biological science, including at least 9 semester hours in genetics.

Geneticists with master's degrees usually are appointed at GS–7 or GS–9; those with doctor's degrees are appointed at GS–11 or GS–12. Graduates meeting "quality" requirements may be eligible at the higher grade in each case.

At the GS–7 level the applicant must have at least 1 year of professional experience showing ability to do research work or 1 year of graduate study. However, applicants who have completed bachelor's degrees within the past 2 years may qualify for GS–7 if they have superior academic qualifications. This may be indicated by their overall college average, average in their college major, their class standing, or their election to national honor societies.

GS–9 requires at least 2 years of experience showing a knowledge and understanding of research techniques and of the scientific principles applied in their use.

GS–11 requires at least 3 years of successful professional experience showing the ability to work independently and to perform research work leading to publication in recognized scientific journals or similar media.

For positions at higher levels—GS–12, 13, 14, and 15—progressively responsible experience is required. These positions require experience which shows the ability to conduct the most difficult research. They require outstanding competence in a scientific field and high ability in planning, organizing, directing, and interpreting difficult research projects.

Graduate study may be substituted for experience as follows:

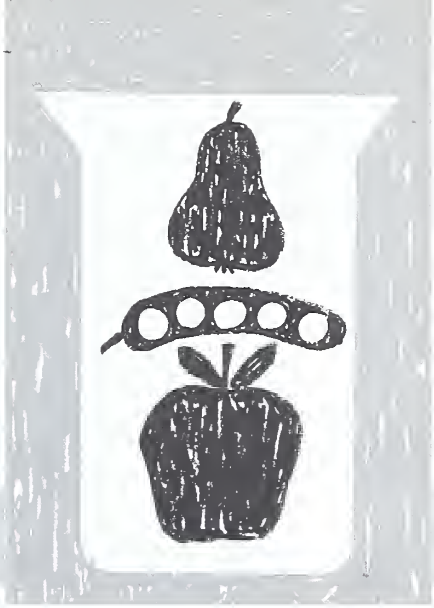
- One year of graduate study may be substituted for 1 year of professional experience and qualifies the applicant in full for GS–7.
- Two years of graduate study may be substituted for 2 years of professional experience and qualifies the applicant in full for GS–9.
- Completion of all requirements for the doctor's degree qualifies the applicant in full for GS–11.

Because of the complexity of modern research, ARS places special emphasis on recruiting well-qualified scientists with graduate training, preferably through the doctorate level. Some high-quality graduates with bachelor's degrees are employed for research work, but they are encouraged to pursue formal graduate training.

Employment Procedures

If you are interested in these positions, you may apply under the examination announcement for Agricultural Research Scientists. Copies of this announcement are available in first- and second-class post offices, college placement offices, and from the Personnel Division, Agricultural Research Service, U.S. Department of Agriculture, Washington, D.C. 20250.

United States Department of Agriculture



Horticulturist

GS–5, 7, 9, 11, 12, 13, 14, 15

■ How can fruits, vegetables, and flowers be sent through all phases of the marketing cycle, while maintaining high quality, consumer appeal, and minimizing wastage? That's the challenge flung at the horticulturist in the Agricultural Research Service.

Duties

The horticulturist works first with these commodities immediately after they have been harvested. At this stage, he may seek the ideal harvest maturity by studying physical and chemical characteristics. He may search for handling methods that prevent physical damage to the product and for cleaning methods and containers that guarantee the consumer clean and sanitary products.

After post-harvest operations, the horticulturist follows the product through the packinghouse into storage. Here, he may help devise new washing, precooling, and packaging methods. He will also seek the temperature, humidity, and atmospheric composition that make an ideal storage environment.

Then the horticulturist will take his knowledge of the commodities to the shipping process where he works to prevent spoilage while products are transported by truck, train, ship, or plane. When the products arrive in the city, he switches emphasis to extending product life in the store and to making the commodity more attractive to the consumer.

He will not be working alone on these projects. Horticulturists in the Agricultural Research Service find an outgoing personality is an asset because they work with scientists from several fields—plant pathologists and physiologists, food technologists, and engineers.

For example, the horticulturist may work on a team seeking a method of preventing spoilage of products. He combines his knowledge of product quality with the pathologist's knowledge of parasitic diseases caused by bacteria and fungi, and the physiologist's ability to recognize malfunctions of the plant cell during ripening and aging, together they find what causes a certain type of spoilage.

After he has completed his research, the horticulturist reports the results in technical papers published in Government publications and professional journals. He writes popular articles for Government and trade publications, and describes his research at professional and trade association meetings and over radio and television.

Horticultural research workers are provided office and laboratory space and secretarial service. The laboratories are equipped with standard apparatus—microscopes, respiration equipment, gas analyzers, and chromatographic equipment. Most of the laboratories have walk-in storage rooms where temperature and humidity are controlled to simulate storage and transportation conditions. Facilities for controlled atmosphere storage are usually available. Some work is also conducted in commercial packing sheds, storage houses, transportation vehicles, and markets. Special equipment is provided for these tests.

A horticulturist has the opportunity to travel to markets and facilities throughout the United

States and sometimes to overseas ports. He usually travels an average of 2 to 4 weeks a year, and is given the opportunity to attend professional society meetings of his discipline or closely related fields.

In the Agricultural Research Service, he will be a member of the Market Quality Research Division which conducts horticultural research at the following locations: Beltsville, Md.; New York, N.Y.; Presque Isle, Maine; Orlando, Fla.; Miami, Fla.; Raleigh, N.C.; Harlingen, Tex.; Chicago, Ill.; East Grand Forks, Minn.; Wenatchee, Wash.; Fresno, Calif.; and Pomona, Calif.

Advancement

Horticulturists with a master's degree are employed mainly at GS–7 and occasionally at GS–9, and those with a doctorate mainly at GS–11 and occasionally at GS–12. Researchers who show they can accept responsibility and do complex research are promoted to higher grades. A highly competent and productive researcher entering the Agricultural Research Service at GS–11 may expect to reach GS–12 and GS–13 within an average of 2 and 6 years, respectively. Exceptionally outstanding scientists may progress faster and to an even higher grade.

Employment Specifications

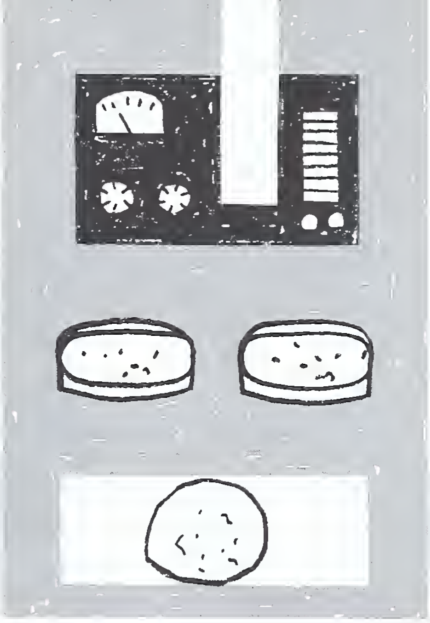
Approximately 70 percent of the research horticulturists are hired after they receive a doctor's degree, the remaining workers are hired after they have a master's degree, and they usually study part-time toward a doctorate.

A horticulturist should be well versed in the basic sciences, as well as in horticulture. He needs a background in plant physiology, plant biochemistry, organic chemistry, mathematics, and statistics. Engineering training is also helpful.

Employment Procedures

Further information can be obtained from the Personnel Division, Employment Section, Agricultural Research Service, U.S. Department of Agriculture, Washington, D.C. 20250.

United States Department of Agriculture



Microbiologist

GS–7, 9, 11, 12, 13, 14

■ Microbiologists perform or direct research on bacteria, rickettsia, viruses, and other organisms affecting agricultural organisms. With the Agricultural Research Service (ARS), microbiologists are members of an important research team.

Detailed Duties

Some microbiologists are concerned with the study of the origin, form, structure, life processes, diseases, and artificial introduction of epizootics in insects. Others investigate the importance of micro-organisms in the treatment of diseases and the part they play as agents in sanitation, decomposition, and fermentation. Other microbiologists are working on projects related to the function of micro-organisms in the making of such products as vitamins, antibiotics, amino acids, organic acids, enzymes, alcohol, feed supplements, and polymers. Still others study the ways in which various micro-organisms affect soil productivity or animal nutrition.

Several illustrations of work being done by microbiologists follow:

- Microbiologists in a large fermentation laboratory maintain a culture collection of approximately 9,000 species and strains of bacteria, molds, and yeasts. These are used to develop new industrial processes and products to achieve wider utilization of agricultural products.
- Microbiologists working with the culture collection furnish 2,000 cultures to industrial companies and research laboratories for use in converting agricultural commodities into commercial products including specialized foods and feeds, controlling the harvesting and marketing of food materials, and conducting scientific research.
- Microbiologists collect agriculturally important molds, investigate different methods of storing them, isolate and identify new species, and prepare reports on their studies.
- Microbiologists screen and test large numbers of micro-organisms in search for antibiotics to control plant disease.
- Microbiologists assigned to the bovine anaplasmosis program prepare infected blood and plasm specimens for electron microscopy; they quantitatively evaluate aliquots of these materials by conventional, phase-contrast, and fluorescent microscopic procedures so that the results of electron microscopy can be compared with the results of other microscopic methods.
- Microbiologists study organic fatty acid and nitrogenous excretory products of rumen bacteria and protozoa.

Association with outstanding scientists broadens each scientist's research horizons and develops his individual capabilities. Contacts and collaboration with leaders in industry, with scholars from academic circles, and with scientists at widely known research centers stimulate professional growth of ARS scientists and enrich ARS research programs. In-service training through seminars, meetings, and other techniques is common.

Promotional Opportunities

Advancement in research is based on scientific accomplishment. In research activities, professional employees may aspire to careers in research administration or may pursue careers in the planning and conducting of research itself, without assuming administrative duties. Opportunities for advancement to the highest grades are excellent in all program activities for those who merit it on the basis of productivity, initiative, ability, accomplishments, and other relevant factors.

Employment Specifications

Basic requirements for microbiologist positions are the completion of all requirements for a bachelor's degree in an accredited college or university with a major in the physical or biological sciences, including 20 semester hours in bacteriology or microbiology.

At the GS–7 level the applicant must have at least 1 year of professional experience showing ability to do research work or 1 year of graduate study. However, applicants who have completed bachelor's degrees within the past 2 years may qualify for GS–7 if they have superior academic qualifications. This may be indicated by their overall college average, average in their college major, their class standing, or their election to national honor societies.

GS–9 requires at least 2 years of experience showing a knowledge and understanding of research techniques and of the scientific principles applied in their use.

GS–11 requires at least 3 years of successful professional experience showing the ability to work independently and to perform research work leading to publication in recognized scientific journals or similar media.

For positions at higher levels—GS–12, 13, and 14—progressively responsible experience is required. These positions require experience which shows the ability to conduct the most difficult research. They require outstanding competence in a scientific field and high ability in planning, organizing, directing, and interpreting difficult research projects.

Graduate study may be substituted for experience as follows:

- One year of graduate study may be substituted for 1 year of professional experience and qualifies the applicant in full for GS–7.
- Two years of graduate study may be substituted for 2 years of professional experience and qualifies the applicant in full for GS–9.
- Completion of all requirements for the doctor's degree qualifies the applicant in full for GS–11.

Microbiologists with master's degrees usually are appointed at GS–7 or GS–9; those with doctor's degrees are appointed at GS–11 or GS–12. Graduates meeting "quality" requirements may be eligible at the higher grades in each case.

Because of the complexity of modern research, ARS places special emphasis on the recruitment of well-qualified scientists with graduate training, preferably through the doctorate level. Some high-quality graduates with bachelor's degrees are employed for research work, but they are encouraged to pursue formal graduate training.

Employment Procedures

If you are interested in these positions, request information about examination and employment procedures from the Personnel Division, Agricultural Research Service, U.S. Department of Agriculture, Washington, D.C. 20250.

Plant Pathologist

GS–7, 9, 11, 12, 13, 14

■ Plant pathologists conduct research on the cause and control of the diseases attacking crop plants, including those caused by fungi, bacteria, viruses, and adverse physiological conditions.

Detailed Duties

Plant pathologists work closely with plant breeders and others in developing disease-resistant species. They conduct research related to producing artificial epiphytotics of various diseases; methods for prevention and control of diseases; the life cycles of the disease-producing organisms; and the host-parasite relationships and the effects of disease on the culture, harvest, transportation, and storage of plants or plant products. As illustrations:

- Plant pathologists isolate and identify soil micro-organisms which alter pesticides.
- Plant pathologists study the absorption, storage, and release of pesticides by soil organisms.
- Plant pathologists cooperate with plant physiologists on studies of the relationship between chemical structure of pesticides and microbiological inactivations.
- Plant pathologists study the interrelationships of environment, microbial activity, and pesticide inactivation.
- Plant pathologists study the comparative resistances of cereal varieties to the disease under study.
- Plant pathologists working with cereal grains collaborate with agronomists and geneticists in genetic studies of wheat and its relatives to locate and transfer resistance to commercial varieties.
- Plant pathologists conduct cytological studies of the basic effects of antibiotics and other chemicals which have an inhibitor effect upon the mildew pathogen.

At the Beltsville Research Center, world collections of seeds are assembled, evaluated, and maintained to discover useful germ plasm and material for use in the development of evolutionary principles. Seeds are distributed throughout the country for use in breeding improved varieties.

The mushroom research program is known internationally. Mushroom research includes methods of controlling diseases, improvement of natural and artificial composts, and basic studies on genetics and strain improvement.

Two hundred or more imported varieties of sugarcane are grown annually under quarantine to avoid introduction of foreign diseases and pests. After quarantine, the valuable germ plasm is transferred to sugarcane breeding stations in the United States and other countries.

New selections of sweet sorghum are evaluated for resistance to bacterial stripe disease.

Sugarbeet research is conducted primarily to establish basic breeding material which is resistant to leaf spot and black root.

The association with outstanding scientists broadens each scientist's research horizons and expands his individual capabilities. Contacts and collaboration with leaders in industry, scholars from academic circles, and scientists at widely known research centers stimulate professional growth of ARS scientists and enrich ARS programs. Inservice training through seminars, meetings, and other techniques is common.

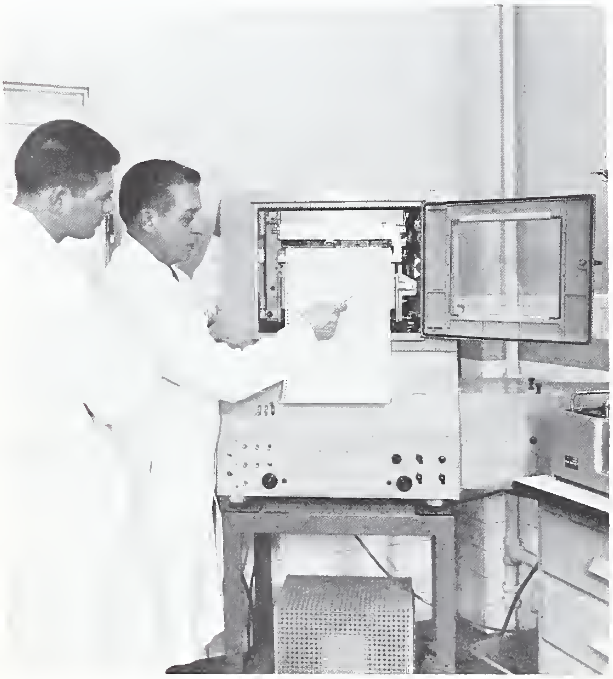
Promotional Opportunities

Advancement in research is based on scientific accomplishment. In research activities, professional employees may aspire to careers in research administration or may pursue careers in the planning and conducting of research itself without assuming administrative duties. Opportunities for advancement to the highest grades are excellent for those who merit it on the basis of productivity, initiative, ability, accomplishments, and other relevant factors.

Employment Specifications

Basically, applicants must have successfully completed a 4-year curriculum in an accredited college or university with a major in plant pathology or related plant sciences, including at least 10 semester hours in plant pathology.

At the GS–7 level the applicant must have at least 1 year of professional experience which shows his ability to do research work or 1 year of graduate study. However, applicants who have completed bachelor's degrees within the past 2 years may qualify for GS–7 if they have superior academic qualifications. This may be indicated by their overall college average, average in their college major, their class standing, or their election to national honor societies.



GS–9 requires at least 2 years of experience showing knowledge and understanding of research techniques and of the scientific principles applied in their use.

GS–11 requires at least 3 years of successful professional experience showing the ability to work independently and to perform research work leading to publication in recognized scientific journals or similar media.

For positions at higher levels—GS–12, 13, and 14—progressively responsible experience is required. These positions require experience which shows the ability to conduct the most difficult research. They require outstanding competence in a scientific field and high ability in planning, organizing, directing, and interpreting difficult research projects.

Graduate study may be substituted for experience as follows:

- One year of graduate study may be substituted for 1 year of professional experience and qualifies the applicant in full for GS–7.
- Two years of graduate study may be substituted for 2 years of professional experience and qualifies the applicant in full for GS–9.
- Completion of all requirements for the doctor's degree qualifies the applicant in full for GS–11.

Plant pathologists with master's degrees are usually appointed at GS–7 or GS–9; those with doctor's degrees are appointed at GS–11 or GS–12. Graduates meeting "quality" requirements may be eligible at the higher grades in each case.

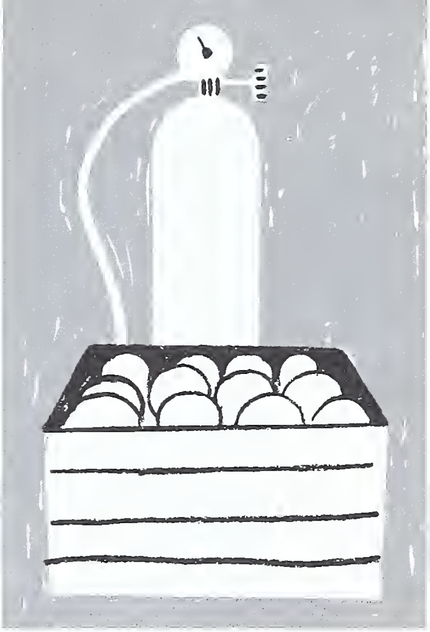
Because of the complexity of modern research, ARS places special emphasis on the recruitment of well-qualified scientists with graduate training, preferably through the doctorate level. Some high-quality graduates with bachelor's degrees are employed for research work, but they are encouraged to pursue formal graduate training.

Employment Procedures

If you are interested in plant pathologist positions, you may apply under the examination announcement for Agricultural Research Scientists. Copies of this announcement are available in first- and second-class post offices, college placement offices, and from the Personnel Division, Agricultural Research Service, U.S. Department of Agriculture, Washington, D.C. 20250.

United States Department of Agriculture

Plant Pathologist Marketing



GS–7, 9, 11, and 12

■ Some of the most important agricultural research has moved from the farm to the commercial channels where food is transported and marketed. The USDA plant pathologist plays a key role in this research. Consumers, farmers, and everyone else in the Nation's marketing channels depend upon his past, present, and future work to ensure the wholesome, flavorful, and nutritious qualities of food with high sales appeal.

Many plant diseases that attack fruits, vegetables, grain, and seeds in market channels have been conquered through the work of plant pathologists in the Market Quality Research Division of USDA's Agricultural Research Service. Many more diseases have been only partly conquered, and others require much more research in order to develop satisfactory controls. The plant pathologist of the future has much to contribute to better marketing of food products, both in domestic markets and in the increasingly important overseas markets.

Duties

The plant pathologist studies organisms responsible for spoilage of fresh fruits and vegetables, and he determines which are important in the Nation's marketing channels, and develops practical methods of controlling the organisms. His work covers every important kind of fruit, vegetable, grain and seed; he works in laboratories in different production and marketing centers specializing in certain products.

The Market Quality Research Division has 13 laboratories. They are located in California, Florida, Illinois, Maine, Maryland, Minnesota, New York, North Carolina, Texas, and Washington. The plant pathologist's work takes him from these laboratories into every mode of transportation used for agricultural products, and into the warehouses, retail stores, and other facilities used in processing and handling food from the time it leaves the farm until it reaches the consumer.

In addition to planning and conducting research, the plant pathologist disseminates information on his research to the public, to agricultural organizations, and to scientific groups. He presents his material in publications issued by the Government and by scientific organizations, in radio and television broadcasts, and at meetings he attends.

The plant pathologist's work in the laboratory and in the field is often conducted as part of a team, including plant physiologists, food technologists, and engineers. His work includes both basic studies that will have practical application at an unknown future time and those that have practical application to immediate commercial problems.

Equipment for both field and laboratory research is modern and enables the researcher to carry out a wide range of studies under either commercial or laboratory conditions. Atomic-energy sources are one example of the tools that may be widely used in the future, and that are presently being used on a limited scale to protect food products from spoilage by plant diseases.

The introduction of new handling, storing, and shipping practices, such as vacuum cooling, hydrocooling, controlled atmosphere storage, and mechanical harvesting, creates entirely new areas of research; much work is needed by plant patholo-

gists to study the effects of plant diseases under these and other conditions of modern marketing.

Advancement

Promotional opportunities are excellent for the plant pathologist who demonstrates initiative and the ability to analyze problems and to plan and conduct productive research. A few plant pathologists with a master's degree are appointed in grade GS–7 and occasionally at GS–9. Those with a doctor's degree are appointed in GS–11 and occasionally at GS–12. Promotions to higher grades are made when the research worker demonstrates ability to assume greater responsibility and conduct more complex research. A highly competent and productive plant pathologist entering the Agricultural Research Service at GS–11 may expect to reach GS–12 and GS–13 within an average of 2 and 6 years, respectively. Exceptionally outstanding scientists may progress faster and to an even higher grade.

Employment Specifications

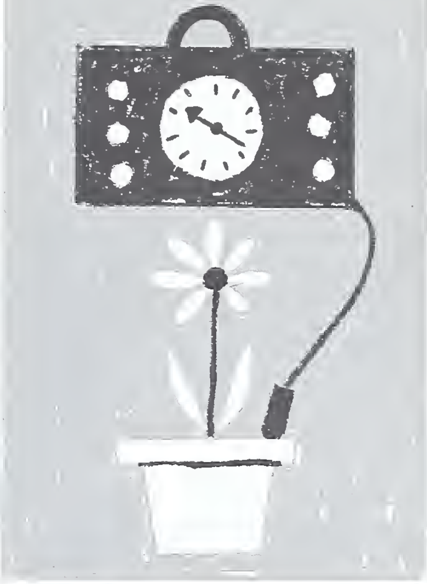
Approximately 90 percent of the research plant pathologists are hired after they receive a doctor's degree. They need specialized background in post-harvest problems, as well as a well-grounded background in the basic sciences.

Employment Procedures

For further information write to the Personnel Division, Agricultural Research Service, U.S. Department of Agriculture, Washington, D.C. 20250.

United States Department of Agriculture

Plant Physiologist Marketing



GS–7, 9, 11, and 12

■ What causes fruit to ripen? Why does it ripen? Why does chilling injure sweetpotatoes? What causes tissues to age? Why aren't they self-regenerating?

Plant physiologists working with the Market Quality Research Division of USDA's Agricultural Research Service seek answers to questions like these.

Duties

Plant physiologists probe into the very nature of living tissue. Perhaps they will be the ones to unlock the secret of cell life—to the benefit of all mankind.

But their work has very practical aspects here and now. Some of it is already saving millions of dollars each year as methods they developed are put into use to prolong the market life of fruits and vegetables and to reduce the after-harvest spoilage that still results in a great deal of waste fruits and vegetables.

Plant physiologists see great potential for slowing down too-rapid post-harvest development of fruits and vegetables. Some recent work, for instance, shows that rosebuds held in an ethylene-oxide atmosphere for a short period will retain their youthful good looks for days longer than untreated buds. Now physiologists are working on the application of this principle to other commodities.

Study of how atmosphere—its temperature, relative humidity, and composition—affects shelf life and market quality of fruits and vegetables is one aspect of ARS plant physiologists' work. Another is the study of the effects of post-harvest treatments; that is, the relationships of growth regulators and stimulants to the market quality of such products as strawberries.

Basically, plant physiologists study the physiological processes that occur in fruits, vegetables, and grain after they are harvested; while they are in storage; while they are moving by rail, trucks, ships, or aircraft; and while they are being marketed in the cities. And they develop practical methods to promote the desirable physiological changes and to retard the undesirable changes.

Frequently, they work as part of a team representing several scientific disciplines. Depending on where they are working and on the problems, they may team up with horticulturists, plant pathologists, engineers, food technologists, or seed technologists.

ARS plant physiologists work in laboratories located in: Beltsville, Md.; New York, N.Y.; Presque Isle, Maine; Orlando, Fla.; Miami, Fla.; Raleigh, N.C.; College Station, Tex.; Harlingen, Tex.; Chicago, Ill.; East Grand Forks, Minn.; Wenatchee, Wash.; Fresno, Calif.; and Pomona, Calif.

These laboratories, in which the physiologist is provided office space and secretarial services, are equipped with standard apparatus, such as microscopes, incubators, Warburgs, autoclaves, colorimeters, PH meters, gas analyzers, centrifuges, and chromatographic equipment. In addition, most have walk-in storage rooms in which temperature and humidity can be controlled for simulated storage and transportation tests.

Special equipment is provided for research conducted under actual commercial conditions in packing sheds, storage facilities, transport vehicles, and markets. Physiologists often have an opportunity to conduct studies in various parts of the United States, and sometimes in overseas ports.

An important part of the physiologist's job is getting his research results to be public, so that they can be put to practical use. This he does through publishing his results in USDA bulletins, in professional journals, and in trade papers. He also spreads information through personal contacts, in talks before professional and trade groups, and by participation in radio and television broadcasts.

Advancement

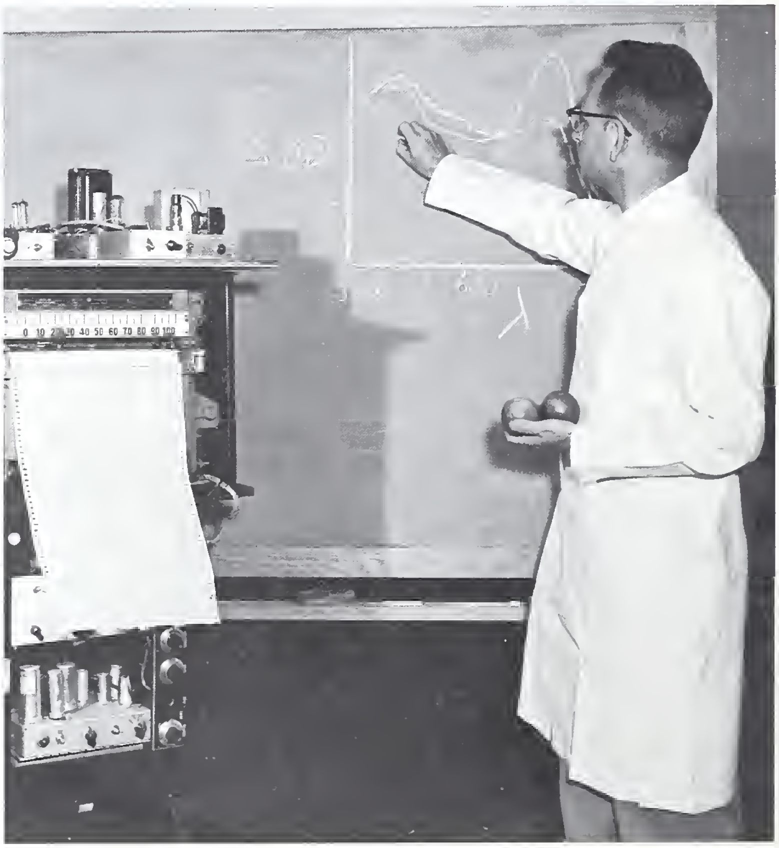
Promotional opportunities are excellent for plant physiologists who demonstrate initiative and ability to analyze problems and to plan and conduct productive research. A few applicants with a master's degree may be appointed at grade GS–7 and occasionally at GS–9; those with a doctor's degree may be appointed at GS–11, and occasionally at GS–12. Promotions to higher grades are made when the researcher demonstrates ability to assume greater responsibility and conduct more complex research. A highly competent and productive plant physiologist entering the Agricultural Research Service at GS–11 may expect to reach GS–12 and GS–13 within an average of 2 and 6 years, respectively. Exceptionally outstanding scientists may progress faster and to an even higher grade.

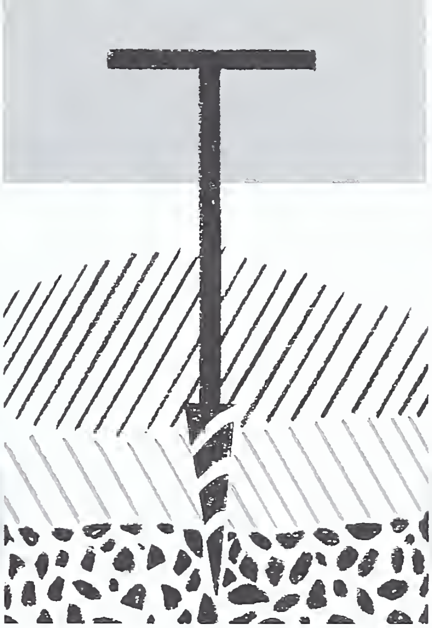
Employment Specifications

Over 90 percent of our plant physiologists are hired after they have received a doctor's degree. For these positions specialized background in postharvest physiology and plant biochemistry is desirable.

Employment Procedures

For further information you may write to: Personnel Division, Employment Section, Agricultural Research Service, U.S. Department of Agriculture, Washington, D.C. 20250.





Soil Scientist

GS–5 and GS–7

■ Soil scientists in the Soil Conservation Service (SCS) are key men in the national soil, water, and resource conservation and development program. They provide soils information needed for land-use planning on both agricultural and nonagricultural land. Their findings appear in published soil survey reports that are used by landowners and operators, engineers, highway departments, planning and zoning bodies, builders, realtors, and others. And they have opportunity to work in the great outdoors, at any of thousands of locations throughout the United States, Puerto Rico, and the Virgin Islands.

Duties

Soil scientists examine soils to identify the physical and chemical characteristics that affect the use and management of the land. They note differences in slope, erosion, geological formations, vegetation, and other features. They classify the soils into units that can be interpreted in terms of their capability.

Further work involves collection of data on crop adaptabilities, yields, and responses to different systems of management; grouping soils according to their capability; predicting yields of crops, grasses, and trees that can be produced under defined systems of management; forecasting physical behavior of soils in relation to engineering structures; and making interpretations for many other uses. Preparation of guides relating soil mapping units to recommended soil management practices is also a vital duty.

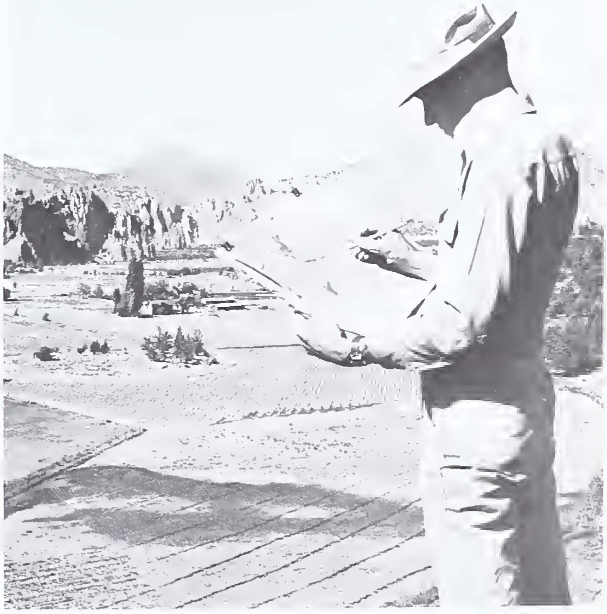
In addition, soil scientists work in laboratories where they analyze samples of soil, water, and vegetative materials to determine their physical and chemical properties.

Training

SCS provides intensive and specialized training under experienced leaders in all phases of soil science, both on-the-job and in group training centers.

Opportunity for Advancement

New professional employees usually enter SCS at grade GS–5 and GS–7. Higher grade positions



normally are filled by promoting from within the Service through the SCS Career Development and Promotion Plan.

Qualifications

You will need a college degree with a major in soils or a related subject, such as agronomy, with at least 15 semester hours in soils and other course work.

How to Apply

Ask your college placement officer or local postmaster for the announcement of the examination and an application blank. Send your application to the Interagency Board of U.S. Civil Service Examiners responsible for the area in which you wish to work.

Section III

PART

5

CAREERS IN ENGINEERING

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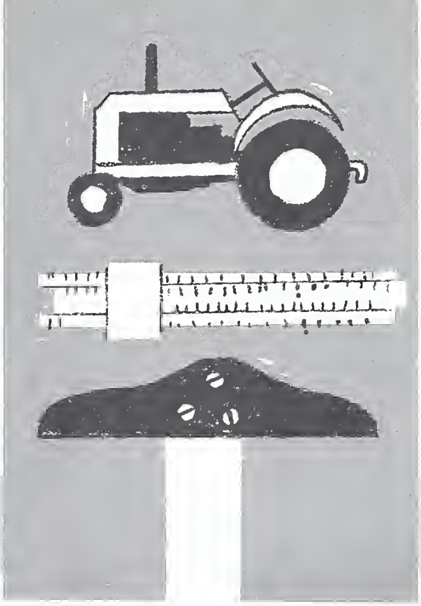
United States Department of Agriculture

Agricultural Engineer



GS–5, 7, 9, 11, 12, 13, 14, 15

▪ The Agricultural Research Service is heavily engaged in applied research programs. Playing vital roles in these programs are men and women working in agricultural engineering.

Detailed Duties

Agricultural engineers conduct research on the engineering phases of investigations concerned with (1) harvesting and processing of crops; (2) tillage, related soil mechanics, and crop growing; (3) livestock production and farm structures; and (4) application of electrical energy to agriculture. Examples of their work are:

- Creating mathematical models of hydrologic performance of agricultural watersheds to evaluate influences of soil characteristics, agronomic practices, and engineering measures;
- Conducting basic research to establish optimum quantity and quality of electromagnetic radiation used in plant and animal production and for attraction and control of insects;
- Directing fundamental research on the physics of fine particles particularly as the forces relate to the movement of pesticide particles and air pollution:
- Carrying on basic research on plant and animal environment and developing automatic controls and equipment for many other fruits and vegetables;
- Developing instrumentation for nondestructive evaluation, sorting and grading fruit according to internal condition; and,
- Producing machines for mechanically harvesting cherries and plums. Research is proceeding on equipment for many other fruits and vegetables.

While some of the engineering research of the ARS is done at the Beltsville Research Center located outside Washington, D.C., many engineers are assigned to field research stations and to the utilization laboratories.

At Beltsville, engineers study ways of reducing the increasing costs of farm buildings and of improving farm facilities, equipment, and machines. They study year-round ventilation and air conditioning to detect functional problems, required controls, performance requirements, and effects on livestock and poultry. Cooperation on projects with committees from State agricultural colleges in the operation of the Cooperative Farm Building Plan Exchange is also a vital part of the job.

Promotional Opportunities

Engineers may be appointed at the grade and salary level for which their education and experience qualify them. Excellent promotional opportunities exist. Promotions are related to productivity, initiative, ability, accomplishments, and creativity rather than to the assignment of additional administrative or supervisory duties.

Employment Specifications

To qualify as a GS–5, the applicant must have completed a full 4-year (or longer) professional engineering curriculum, accredited by the Engineers' Council for Professional Development, or an equivalent curriculum. Study must be in the same branch of engineering as the one for which the person applies or in a closely allied branch.

Graduate study may be substituted for experience as follows:

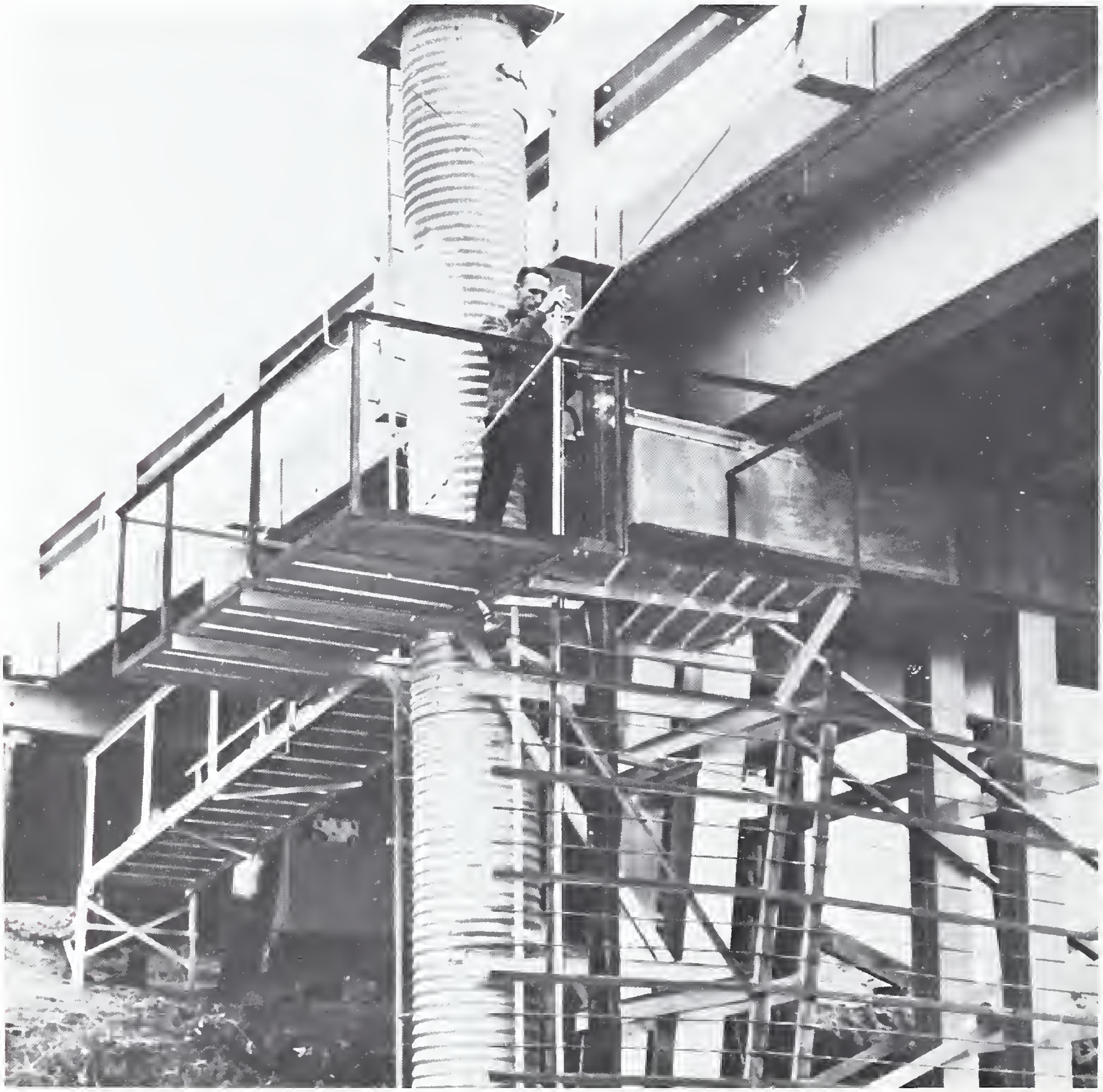
- One year of graduate study may be substituted for 1 year of professional experience and qualifies the applicant in full for GS–7.
- Two years of graduate study may be substituted for 2 years of professional experience and qualifies the applicant in full for GS–9.
- Completion of all requirements for the doctor's degree qualifies the applicant in full for GS–11.

Engineers with master's degrees are usually appointed at grades GS–7 or GS–9; those with doctorates are appointed at GS–11 or GS–12. Graduates meeting quality requirements may be eligible at the higher grades in each case.

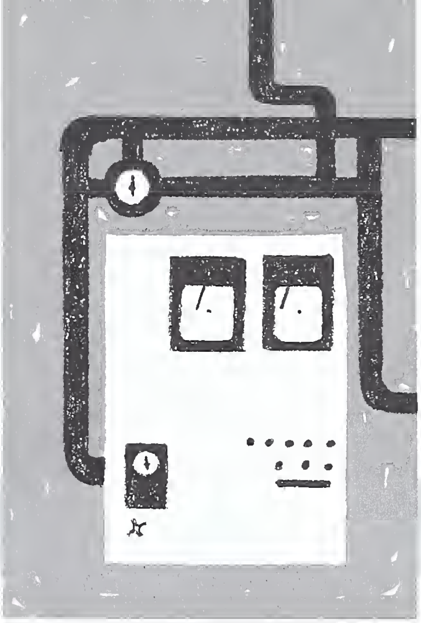
Because of the complexity of modern research, ARS places special emphasis on recruiting well-qualified scientists with graduate training, preferably through the doctorate level. Some high-quality graduates with bachelor's degrees are employed for research work, but they are encouraged to pursue formal graduate training.

Employment Procedures

If you are interested in these positions, complete examination and employment information can be obtained from the Personnel Division, Agricultural Research Service, U.S. Department of Agriculture, Washington, D.C. 20250.



Chemical Engineer



GS–7, 9, 11, 12, 13, 14, 15

▪ The chemical engineer plays a critical role in the Agricultural Research Service programs. He is responsible for applying the results of research so that they can benefit the farmer, the businessman, and the consumer.

Duties

Chemical engineers investigate the feasibility of an experimental process by testing it out on a pilot-plant scale. The process may have originated in the engineering and development laboratory where a great deal of original engineering research is done; or it may have been worked out in one of the research laboratories in a division. In either case, scaling the process up for pilot-plant operation inevitably demands the highest degree of engineering skill and ingenuity. Chemical engineers in ARS work closely with chemists, technologists, economists, and other engineers in the utilization laboratories during developmental stages of the projects, and with industry representatives during application stages.

Perhaps the best way of understanding what chemical engineers do in ARS is to look at some of the projects on which they have worked and are now working.

A chemical engineer in California developed a pilot-plant for "foam-mat" drying of juice concentrates which give beverages flavor, color, and vitamin content comparable to fresh juices. In Illinois a laboratory process for developing new gums from cereal-derived raw materials was successfully converted. Other chemical engineers have developed processes to effect the commercialization of potato flakes and recovery of volatile fruit flavors.

At the Eastern Utilization Research and Development Division in Wyndmoor, Pa. (near Philadelphia), engineers work with research laboratories in pilot-plant studies in producing whole dry milk; recovering the aroma of fruit juices; handling, preserving, and processing meats; and tanning leather to meet the competition of plastics.

The engineers at the New Orleans utilization division are involved in a large number of vital projects. New cotton opener-cleaner for textile mills; methods for measuring grain softness; methods for investigating the effect of fiber length distribution on processing performance; improved cottonseed milling techniques; production of paints, varnishes, and enamels with tung oil; continuous turpentine stills and continuous processes for dehydration of turpentine; and improved citrus fruit frozen concentrates, cucumber fermentation, and sweet potato dehydration are just a few areas of investigation.

ARS chemical engineers recognize that everyone is affected by new developments in agriculture. They gear their work so that the farmer, the businessman, and the consumer receive the benefits of increased quality and quantity of agricultural production economically.

Professional Recognition

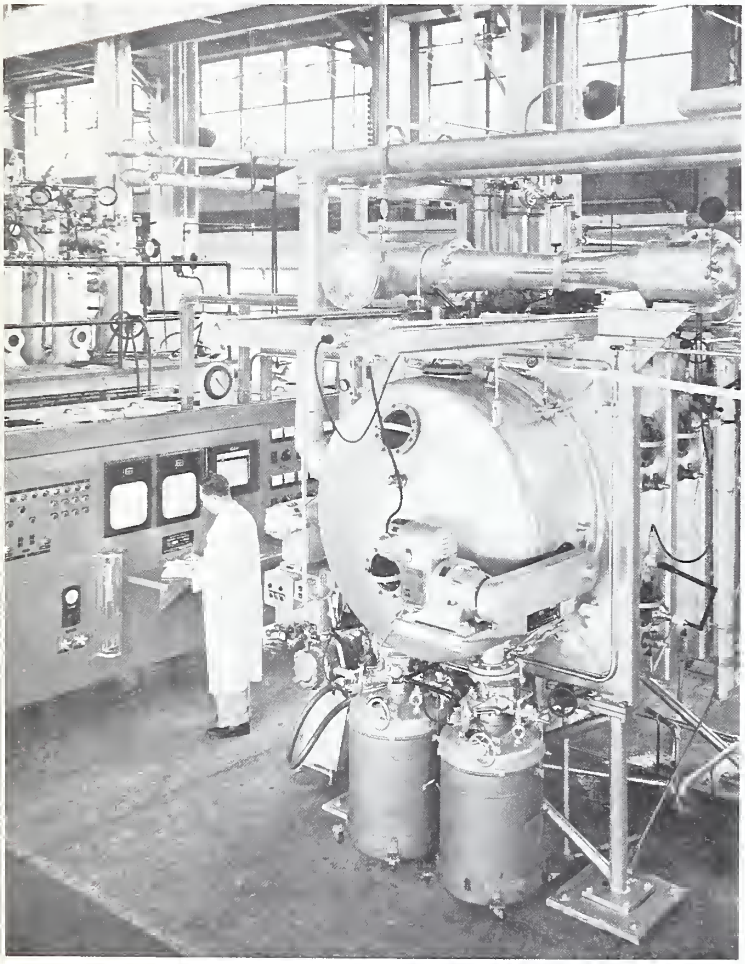
Employees are encouraged to publish the findings of their research and receive full credit for authorship. Membership in professional associations is encouraged as well as the presentation of papers at professional meetings. Contact and collaboration with outstanding scientists in Government, private industry, and academic circles stimulates professional growth.

Promotional Opportunities

Engineers may be appointed at the grade and salary level for which their education and experience qualify them. Excellent promotional opportunities exist. Promotions are related to productivity, initiative, ability, accomplishments, and creativity rather than to the assignment of additional administrative or supervisory duties.

Employment Specifications

To qualify as a GS-5, the applicant must have completed a full 4-year (or longer) professional engineering curriculum, accredited by the Engineers' Council for Professional Development, or an equivalent curriculum. Study must be in the same branch of engineering as the one for which the person applies or in a closely allied branch.



Experience required for positions at GS-7 and above is as follows:

Grade of position	Total professional engineering experience (years)	Specialized experience (years)
GS-7	1	1
GS-9	2	1
GS-11 through GS-15	3	1

Graduate study may be substituted for experience as follows:

- One year of graduate study may be substituted for 1 year of professional experience and qualifies the applicant in full for GS-7.
- Two years of graduate study may be substituted for 2 years of profesional experience and qualifies the applicant in full for GS-9.
- Completion of all requirements for the doctor's degree qualifies the applicant in full for GS-11.

Engineers with master's degrees are usually appointed at grades GS-7 or GS-9; those with doctorates are appointed at GS-11 or GS-12. Graduates meeting quality requirements may be eligible at the higher grades in each case.

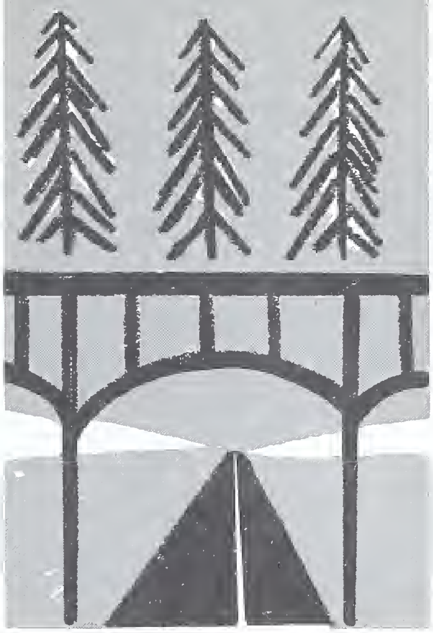
Because of the complexity of modern research, ARS places special emphasis on recruiting well-qualified scientists with graduate training, preferably through the doctorate level. Some high-quality graduates with bachelor's degrees are employed for research work, but they are encouraged to pursue formal graduate training.

Employment Procedures

If you are interested in these positions, complete examination and employment information can be obtained from the utilization laboratory nearest your home or from the Personnel Division, Agricultural Research Service, U.S. Department of Agriculture, Washington, D.C. 20250.

United States Department of Agriculture

Civil (Highway) Engineer



GS–5 and GS–7

▪ The Forest Service is now engaged in an extensive development and improvement program on the 154 national forests. The magnitude of this program has been progressively increasing, and it is expected that this expansion will continue for many years.

The Job

To implement this improvement program, the Forest Service needs a skilled engineering staff. This increasing volume of work also indicates that Forest Service engineers will have better than normal opportunities to advance to more responsible and better paid positions.

Building Roads

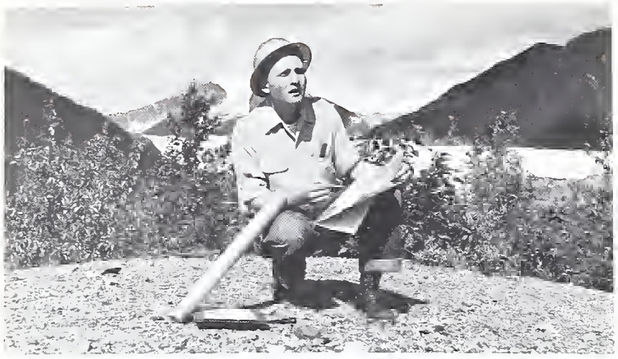
Since at present approximately two-thirds of the over 180 million acres of national forest lands are inaccessible by road, the largest activity in the civil and highway engineering field is the design and construction of new roads and bridges. At present the Forest Service is building over 6,000 miles of new road each year, and it is anticipated that this rate of construction will increase in the near future.

The complexity of this road building program challenges the maximum professional ability of the most capable engineers. The major portion of the new mileage now being built lies in rugged mountain terrain. In this type of work each new mile presents new problems which must be solved. These problems include economic analyses, selection of applicable construction standards, and route determination, along with the many design details—bridges must carry the heavy load of logs, which sometimes exceed the maximum permitted on State highways.

Road building isn't the only work done by Forest Service civil engineers. As road construction makes more areas accessible, other improvement must follow. Administrative structures, warehouses, dormitories, family housing, visitor information centers, dams, campgrounds, water and sanitation facilities, and lookout towers must be designed and built. Each location or site is different and previously developed plans must be modified or replaced to meet different requirements. This precludes the extensive use of so-called standard plans and requires the engineer on each job to work out his own solutions.

Organization of Work

Forest Service engineering work is normally organized to provide the young engineer with the opportunity to develop a broad background of training and experience. In most instances, for example, each of the 154 national forests has its own engineering staff, directed by a forest engineer. Usually, the engineers assigned to the forest are responsible for the complete engineering job with the exception that the design of bridges, buildings, and other complex structures is normally done at the regional offices. These people direct surveys, design, plan preparation, and supervise the construction for many types of improvement work. Each engineer in these comparatively small organizational units has opportunities to work on various stages of several types or classes of improvement work and the beginner is



permitted to gain experience in as many varieties of jobs as is possible.

Also, the Forest Service uses civil engineers in a number of specialized fields. Among these are cadastral surveys, topographic surveys and map making, materials testing, watershed protection, soils classification, and photogrammetry. Some recent graduates may prefer to begin their professional engineering careers in one of these specialized fields. Others may prefer to gain 1 or 2 years of general field engineering experience before transferring into one of the specialities.

Promotional Opportunities

Engineers usually enter the Forest Service at the GS–5 or GS–7 level, depending on their qualifications and experience. Engineering careers in the Forest Service extend through GS–16.

Training

From the time he enters on duty, the engineer's training and work assignments are planned to develop maximum professional competence. He is encouraged and aided in obtaining his professional license and in continuing his professional education. He works in close cooperation with experienced engineers. Opportunities are excellent for transfer between different areas of the country to obtain broader experience.

Qualification Requirements

To qualify for GS–5, you must have a bachelor's degree in civil engineering or a closely related engineering field. Entrance at the GS–7 level is possible if the applicant attained a master's degree or maintained a "B" average or better in college or graduated in the upper 25 percent of his class, qualified for an accredited honor society or attained other specified scholastic levels. Graduate study, advanced degrees, or professional experience will qualify you for entrance at higher levels.

Additional Information

For more information write to one of the offices listed below and ask for a copy of the booklet "The Forest Service Engineer."

Director, Division of Engineering
Forest Service
U.S. Department of Agriculture
Washington, D.C. 20250

Or you may write to the regional forester at one of the following addresses:

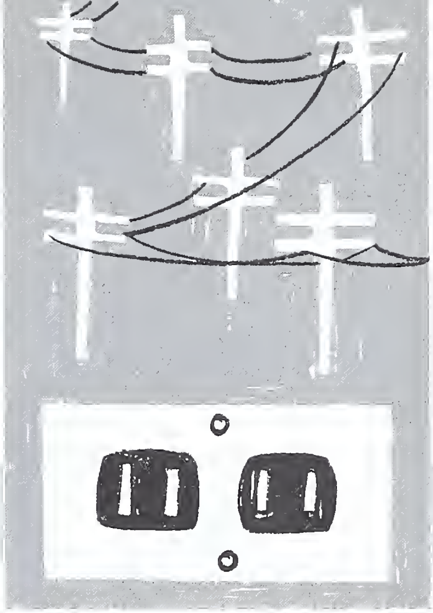
Federal Building, Missoula, Mont. 59801
Federal Center, Building 85, Denver, Colo. 80225
517 Gold Avenue SW., Albuquerque, N. Mex. 87101
324 25th Street, Ogden, Utah 84401
630 Sansome Street, San Francisco, Calif. 94111
P.O. Box 3623, Portland, Oreg. 97208
50 Seventh Street NE., Atlanta, Ga. 30323
633 W. Wisconsin Avenue, Milwaukee, Wis. 53203
P.O. Box 1628, Juneau, Alaska 99801

How to Apply

You can apply for these positions up to 9 months before graduation from college. Form 171, "Personal Qualifications Statement" available at any post office, should be completed and sent to one of the offices listed above. No formal examination is necessary if you hold a suitable degree.

United States Department of Agriculture

Electrical Engineer



GS–5 and GS–7

■ The Rural Electrification Administration (REA) helps bring electric and telephone service to rural America through long-term loans and technical assistance. Engineering, management, and accounting services are important parts of this assistance.

In 32 years of operation, REA has financed the construction of more than 1,100 rural electric systems serving 5 million consumers in 46 states, the Virgin Islands, and Puerto Rico.

Since 1949 when the telephone loan program began, more than 800 REA-financed telephone companies and cooperatives have placed close to 3,400 modern dial exchanges in operation in rural areas to serve more than 1½ million subscribers.

REA employs about 900 employees, most of whom work in Washington, D.C. Since REA has no branch or field offices, about 250 employees (engineers, management representatives, and accountants) operate from their places of residence in various locations scattered across the country which serve as their official headquarters. Employees receive, in addition to salary, per diem payment for expenses while away from official headquarters. There is also a travel allowance to cover the expenses of employees driving their own cars on official business.

Career Opportunities

Seniors majoring in electrical engineering are recruited for REA's Electrical and Telephone Engineer Trainee Programs. REA engineers gain experience through a wide variety of field and headquarters engineering work. Some of the phases included are:

Telephone Program

- Basic system design.
- Central office switching equipment.
- Transmission (electronic equipment, such as carrier, voice repeaters, radio, and microwave).
- Pole line design and construction (wire and cable).
- System economic analysis and cost studies.
- Engineering and construction contracts.
- System operation and maintenance.

Electric Program

- Transmission and distribution system design.
- Substations and switching stations.
- Pole line design and construction.
- System protection and inductive coordination.
- Radio, power line carrier, supervisory control, and telemetering systems.
- Steam, diesel, and hydro plant design, construction, technical operation, and maintenance.
- Plant acceptance testing.

Office and Field Experience

Some engineer trainees with either the electric or telephone program begin their career by traveling for 3 or 4 months with an experienced field engineer, while others remain in Washington, D.C. There might also be short assignments in the field with a rural system financed by REA, or with an engineering firm engaged in REA work. While away from headquarters all employees receive a per diem expense allowance, in addition to their salary.

After an initial period of field or office experience, all REA engineers are transferred to Washington, D.C., for training. This training takes the form of lecture-discussion periods supplemented by related on-the-job work. Here the engineer becomes acquainted with REA procedures, requirements, and practices. REA training activities are conducted by experienced staff members and specialists in the various fields of telephone and electrical engineering.

Graduate Study

Employees at the headquarters office have the opportunity, if they desire, to do graduate work at excellent universities in the Washington area or at the U.S. Department of Agriculture Graduate School. All of these offer evening classes at nominal cost.

Work Assignment

After completing the training course, REA engineers receive their first regular assignment which is in Washington, D.C. Later there may be opportunities for field assignments. Although exact locations cannot be predicted, field assignments that are mutually satisfactory are made as vacancies permit.

Entrance Level

Applicants with a bachelor's degree in electrical engineering normally begin at GS–5. However, application may be filed by candidates for the degree in advance of graduation. In some cases, the Civil Service Commission may rate the candidate eligible for GS–7 because of superior academic achievements, 1 year of professional engineering work, or a master's degree. REA hires engineer trainees at the GS–7 level if they receive an eligible rating of GS–7 from the Commission, its appropriate regional offices, or any board of civil service examiners. Those rated eligible for GS–5 only are appointed at GS–5, and upon successfully completing REA's 6-month training program are promoted to GS–7.

Promotions

The engineer is eligible for further promotion to GS–9, GS–11, and GS–12 upon successful completion of progressively responsible assignments of not less than 1 year at each grade. Most REA engineer trainees have been promoted to GS–12 within 4 or 5 years, and many who have longer service now hold more advanced positions.

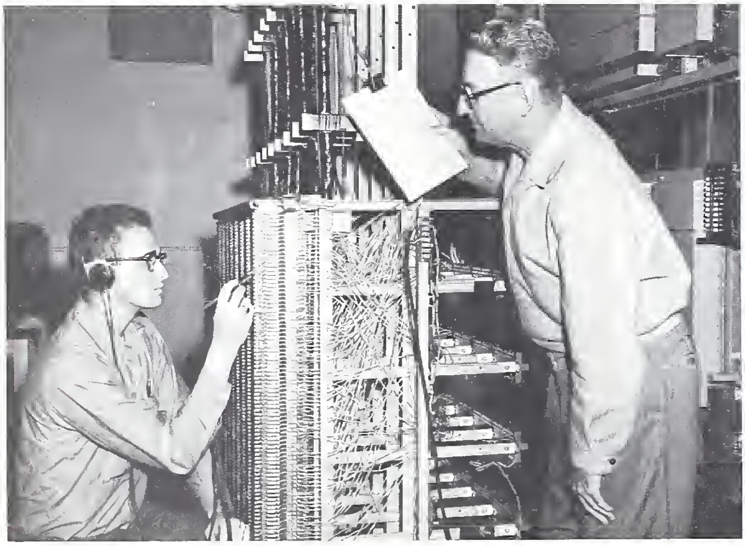
Travel

The Government pays traveling expenses whenever you travel on official business, and it will pay your moving expenses incident to reporting for duty and for subsequent changes in headquarters.

Additional Information

For additional information about opportunities for engineers with REA contact:

Director
Personnel Management Division
Rural Electrification Administration
U.S. Department of Agriculture
Washington, D.C. 20250



United States Department of Agriculture

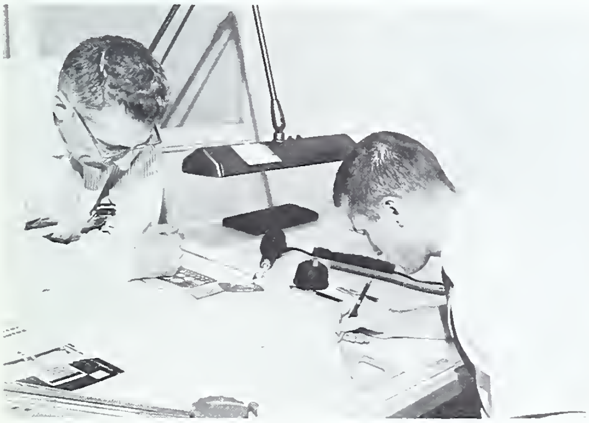
Engineers in Soil Conservation

(Agricultural and Civil)

GS–5 and GS–7

Engineers in the Soil Conservation Service (SCS) play an important role in the national program of soil and water conservation. The conservation structures and systems in this broad program call for many varied engineering services—structural design, hydrology, hydraulics, soil mechanics, and cartography. Engineers have the opportunity to work "across the board" or to specialize, depending on the size of the job to be done. On small jobs the engineer may do all the engineering work, from design through construction; on large jobs he may do just one phase of the engineering work.

One of the Service's primary responsibilities is to give technical help to soil conservation districts that are organized under State law and operated by the landowners themselves. SCS helps the districts plan and carry out conservation plans on individual farms and ranches. These plans assure the best use and proper treatment of land to keep it permanently productive.



Another major function is to help local organizations plan and develop small watershed projects that protect the watershed itself; reduce floods; and provide water for irrigation, livestock, wildlife, recreation, and municipal uses. SCS also plans and applies measures to reduce flood damage in major watersheds.

The Service provides technical information, interpretations of soils, and small watershed hydrologic data for use by city and county governments, highway planners, zoning bodies, and others.

Duties

SCS engineers design and supervise construction of earth-fill and reinforced concrete dams for flood prevention and water storage; spillways, drop structures, outlets, and structures for control of erosion and water; drainage, irrigation, terrace, and water-disposal systems; and streambank protection and channel stabilization works.

SCS engineers make hydrologic studies of rainfall, runoff, and effects of land use and treatment and engineering works on flood flows and areas inundated.

In the laboratory, the engineer supervises tests to determine structural quality of earth materials, density-moisture relationships, and amount and rate of consolidation under loads. These laboratory findings are the basis of recommendations for the construction of earth-fill dams and related engineering works. SCS engineers supervise the compilation and reproduction of maps, charts, and photographs, including ground-control surveys and aerial photography.

Opportunity for Advancement

New professional employees usually enter the Service at grades GS–5 and GS–7. Higher grade positions normally are filled by promoting someone already in the Service, through the SCS Career Development and Promotion Plan. Under this plan employees have the opportunity to develop their professional and management competence so that they can accept positions of greater responsibility. SCS provides intensive and specialized training under competent, experienced technical men, both on-the-job and in group training centers.

Qualifications

Applicants for these positions will need a civil or agricultural engineering degree, with emphasis on hydrology, structural design, drainage, or irrigation.

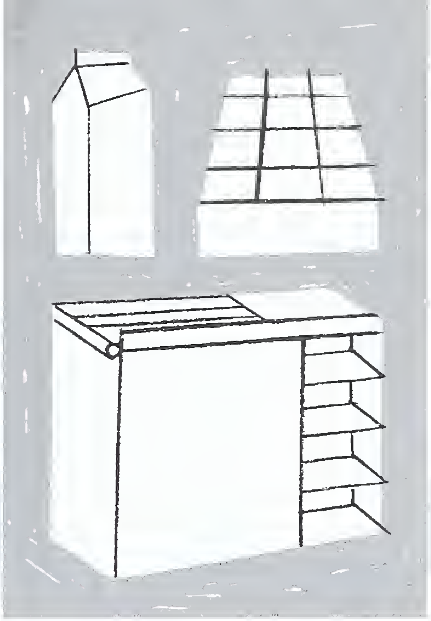
How to Apply

Ask the college placement officer or local postmaster for the announcement of the examination and an application form appropriate to engineers in the Soil Conservation Service. Send the application form to the Interagency Board of U.S. Civil Service Examiners responsible for the area in which you wish to work.

United States Department of Agriculture

Industrial Engineer

GS–5 or GS–7



■ Planning new layouts for wholesale markets, testing new packages for fresh fruits and vegetables, dairy, and meat products, developing more efficient work methods and equipment to handle farm products from farmer to processor to wholesaler to retailer—these are the fields of the industrial engineer in agricultural marketing research.

Duties

In the complex marketing system in the United States today, farm and food products pass through many different facilities and are handled many times as they move from farm to consumer. The industrial engineer in the Transportation and Facilities Research Division of USDA's Agricultural Research Service (ARS) develops practical work methods and other means that the marketing industry can use to reduce or keep to a minimum the costs of getting farm products from the farm to the consumer.

An engineer may be assigned to the Washington office of the Division or to a field office located in a major producing area. In either case, his work takes him into different parts of the country, to the packing plants, warehouses, wholesale markets, or retail stores which are the laboratories for his research.

He may work with problems in handling livestock or poultry, fresh fruits and vegetables, cotton or grain at auction markets, packing plants, warehouses, or elevators. He may study new methods of packaging all the way from the growing point, through storage or terminal market, to wholesaler and to retailer. He may deal strictly with operations to wholesale markets or retail stores. Or he may be concerned with the entire food wholesaling facility for one city.

Training

During 6 months of intensive on-the-job training, the new engineer learns about the general structure of the marketing industry and the particular problems of the segment with which he will be working. He works closely with a marketing specialist in his assigned field to learn about distribution and handling practices for farm products. He learns the past history of the industry and the changes that are taking place. He observes good and bad marketing facilities. He sees what has been accomplished through marketing research, why it has been done and how it has helped, and he finds out what work still needs to be done.

ARS engineers meet and work with members of the marketing industry, State universities, and State offices concerned with agricultural marketing. Some also work closely with biological scientists who conduct research on maintaining the quality of farm products in marketing channels or with other USDA personnel who are concerned with grade standards or inspection requirements for farm products.

In applying industrial engineering techniques to problems in marketing research, ARS engineers:

- Make time and motion studies in the slaughtering, processing, and packaging of poultry and help design equipment that speeds up the work;

- Develop a layout for a meat packing plant or dairy plant to provide the optimum arrangement of equipment and work areas;
- Study the handling of grain in and out of elevators or cotton in warehouses to find the most efficient and economical combination of workers and equipment;
- Make cost analyses of alternative techniques for handling operations in retail stores;
- Simplify work procedures for inventory control and sales accounting for wholesale food distributors;
- Evaluate the labor requirements for filling fresh fruit in new types of packages and for handling the packages;
- Determine, with marketing specialists, the most suitable methods, equipment, arrangement of equipment, and building layout for a city wholesale food marketing facility.

After the research is completed, the next part of the job is to tell the marketing industry about the results. USDA publishes and distributes most of these studies as Marketing Research Reports. These reports, with the technical data that support the conclusions, must tell clearly and effectively how the marketing industry can use the research findings and what can be gained by using them. Engineers also spread information about their research through personal contacts, speeches, and articles for the trade press, or through other media used by the U.S. Department of Agriculture.

Advancement

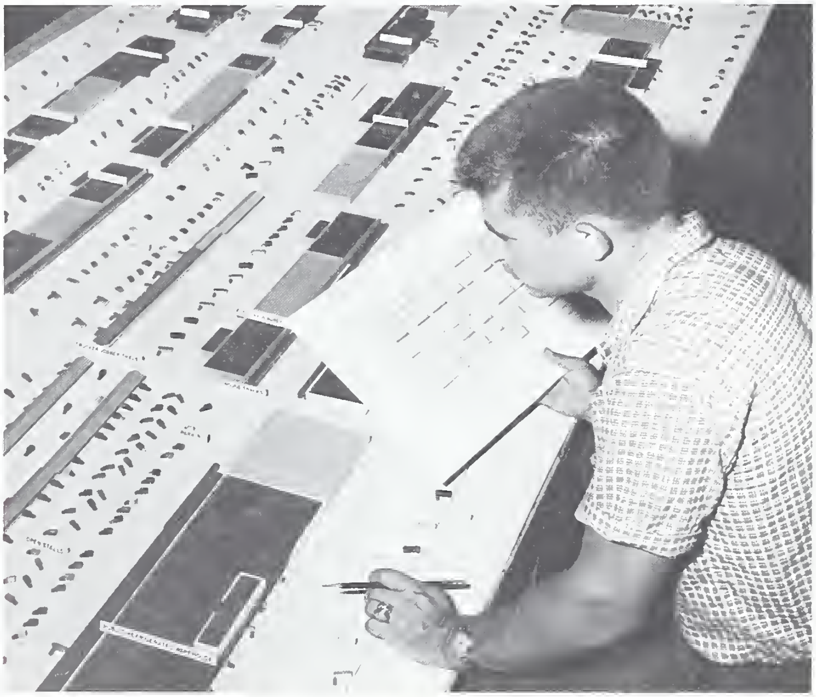
Candidates for industrial engineer positions with the Agricultural Research Service enter on duty at either the GS–5, or GS–7 level, depending on their degree of education or experience or both. Those beginning at the GS–5 level are placed in an intensive on-the-job training program, which upon satisfactory completion, at the end of 6 months will enable the employee to be promoted to GS–7. After 1 year of service at the GS–7 level, employees will be eligible for promotion to GS–9. The advancement opportunities to the higher grade levels are very good.

Employment Specifications

Satisfactory completion of a full 4-year or longer professional engineer curriculum leading to a bachelor's degree in industrial engineering is required.

Employment Procedures

For further information, write to the Personnel Division, Employment Section, Agricultural Research Service, U.S. Department of Agriculture, Washington, D.C. 20250.



United States Department of Agriculture

Mechanical Engineer

GS–5 and GS–7

▪ The U.S. Forest Service needs beginning mechanical engineers in the fields of equipment development and equipment management. Both of these engineering activities are concerned with the development, testing, selection, and use of motor vehicles, aeronautical equipment, tractors, construction and maintenance equipment, and many other types of mechanical units which are needed by the Forest Service in its many and widely diversified field activities. These field operations are conducted in most of the 50 States on the 186 million acres of national forest and national grassland—under many variations of terrain and climate.

Duties

The two types of work for mechanical engineers—equipment development and equipment maintenance and management—are in many respects interrelated. It is likely that some mechanical engineers during their professional careers with the Forest Service, will transfer from one group to the other. If so, they will be given ample opportunity to broaden their training and thus prepare for promotions to supervisory positions.

Equipment Development

Equipment development provides essential support for a wide range of Forest Service activities. In many instances the type of work to be done by the Forest Service in the air, the field, laboratory, shop, or office is different from that accomplished by any other organization; therefore, much of the equipment needed is not normally used by any other public agency or private industry, at least not to the extent necessary to accomplish efficient work on the many large projects of the Forest Service. Among these operations are forest fire prevention and control, brush cutting, tree planting, timber harvesting, mountain road and trail construction and maintenance, as well as the transportation requirements for moving people and material into remote areas. These are a few of the responsibilities of Forest Service mechanical engineers in equipment development work; there are many others, some of which are tapping the unknown.

When an additional project is assigned to one of the equipment development centers, Forest Service mechanical engineers at either San Dimas, Calif., or Missoula, Mont., make studies of the field requirements for getting the job done. They then search the commercial market for equipment or devices which will do it effectively. When a unit is found which may be suitable, these engineers conduct a series of tests in actual field operations. If it is then found practical, proper purchase specifications are prepared and distributed for field use on a Service-wide basis.

Sometimes no commercial equipment is found suitable, even when changes are made. In these instances, the mechanical engineers try to develop effective devices by starting from scratch. Thus they frequently design, construct, and test units which have never been used before. Normally there are several development projects concurrently in progress at each of the development centers.

Equipment Management

Equipment maintenance and management is an equally interesting field. In its daily activities, the

Forest Service uses a fleet of equipment which includes over 600 passenger cars, 6,500 light trucks, 1,000 heavy trucks, 50 airplanes, several hundred fire-fighting units, 700 tractors, and 300 road maintainers; also numerous aircraft under private contract. At the various regional offices, Forest Service mechanical engineers are responsible for the maintenance and management of this fleet. These duties include consultations with field personnel leading toward the selection of types and sizes for purchase; the preparation of purchase specifications and requisitions; the development of field servicing standards; the supervision, direction; and staffing of maintenance (repair) shops; the training of operators; and the many other related duties required to provide effective, dependable, and economical units for use in the field.

Advancement

Mechanical engineers who have recently completed their college work usually enter the Forest Service at GS–5 or GS–7, depending on their qualifications and experience. After a year, most are promoted to the next level. After the initial promotion, further advancement is on the basis of ability and merit. Classification and rates of pay for Forest Service engineers extend through grade GS–16.

From the time he enters on duty, the engineer's training and work assignments are planned to develop his professional competence. He is encouraged and aided in continuing his professional education and association with professional societies. He works in close cooperation with experienced engineers. Opportunities for obtaining broader experience by transfer to other types of work are excellent.

Qualifications

To qualify for GS–5 you must have a bachelor's degree in mechanical engineering. You will be eligible for GS–7 if you have a master's degree, maintain a "B" average in college or are a member of an accredited honor society, or graduate in the top 25 percent of your class, or qualify through other specified scholastic achievements. Graduate study, advanced degrees, or post-graduate professional experience will qualify you for entrance at higher levels.

How to Apply

You can apply for these positions up to 9 months before graduation from college. Form 171, "Personal Qualifications Statement," available at any post office, should be completed and sent to one of the offices listed below. No formal examination is necessary if you hold a suitable degree.

For more information write to one of the offices listed below:

Director, Division of Engineering
Forest Service
Department of Agriculture
Washington, D.C. 20250

Or you may write to the Regional Forester at one of the following addresses:

Federal Building, Missoula, Mont. 59801
Federal Center, Building 85, Denver, Colo. 80225
517 Gold Avenue SW., Albuquerque, N. Mex. 87101
324 25th Street, Ogden, Utah 84401
630 Sansome Street, San Francisco, Calif. 94111
P.O. Box 3623, Portland, Oreg. 97208
50 Seventh Street NE., Atlanta, Ga. 30323
633 West Wisconsin Avenue, Milwaukee, Wis. 53203
P.O. Box 1628, Juneau, Alaska 99801

Director, Equipment Development Center
U.S. Department of Agriculture
Forest Service
444 E. Bonita Avenue
San Dimas, Calif. 91773

Director, Equipment Development Center
U.S. Department of Agriculture
Forest Service
P.O. Drawer 6
Missoula, Mont. 59801

Section III

PART 6

CAREERS IN OTHER PROFESSIONS

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United States Department of Agriculture

Agricultural Economist

▪ Agricultural economics research traces back to early farm management and soil conservation work and has been conducted in various units of the U.S. Department of Agriculture since the early 1900's. The Economic Research Service is the primary employer of economists but other agencies of the Department such as Soil Conservation Service, Forest Service, Consumer and Marketing Service, and the Farmer Cooperative Service also employ economists. International agricultural economists are discussed separately.

Duties

In the Economic Research Service, the work of agricultural economists falls into these main categories: Farm production economics, resource economics, marketing economics, economic and statistical analysis, foreign regional analysis, foreign trade analysis, and economic development.

To meet the need for economic information, about 100 outlook and situation reports are published each year. These reports analyze the changing situation and appraise the most probable future developments. Farmers use these materials in deciding what to produce and when to sell. Other users are those who collect and assemble farm products, those who transport and process them, those who buy and sell at wholesale and retail levels, and those who ship to foreign markets.

In addition to keeping a sensitive finger on the economic pulse of agriculture, the Economic Research Service has a research program as broad as agriculture itself. Research reports—about 400 a year—present these findings to the public. People engaged in every stage of agricultural production and marketing make constant use of these findings. Much of the research material is used by Members of Congress to assist them in developing legislation.

Much farm economic research is designed to answer questions such as: "Is it a good policy?" and "Which is the best choice?" These questions apply to new farm techniques, needed adjustments, new equipment, and proposals for land and water use and development. Recognizing the fact that the marketing costs take the major portion of the dollar the consumer spends for food, agricultural economists constantly study costs of marketing farm products and test ways of reducing these costs. In the rural development program, agricultural economists study the origin, extent, location, and nature of low-income conditions. They develop and evaluate possible methods of increasing employment and income in rural areas.

While much economic research is directed at specific problems, fundamental investigations are also underway—for example, studies of agriculture's role in the economic-growth programs of developing countries. There is also need for analysis of food needs of these countries, their ability to supply these needs, and food aid requirements from the United States and other developed countries.

On the domestic scene, examples include investigations of the economics of resource use, particularly the use of the national heritage of land and water, the institutions that affect natural resource use and distribute agricultural income, and the organizational arrangements that farmers and communities employ to assure more efficient uses of the natural resources.

In the Soil Conservation Service, agricultural economists conduct studies on watershed and river basin development proposals.

In the present fast-moving, ever-changing world, we must stay alert to identify the emerging problems and to catch them while they are small. Agricultural economists must project into the future the probable consequences of alternative courses of action taken today.

Economic research keeps abreast of changing times by measurement, evaluation, and appraisal of problems, as well as by determining how problems have arisen. From such continuing efforts there is being built a foundation of economic information that can be marshaled against the tough and persistent problems of agriculture today and tomorrow.

Qualification Requirements

As an undergraduate in your senior year, you can qualify for an economist position by passing the Federal Service Entrance Examination and meeting the academic requirements for a bachelor's degree, provided that you have at least 21 semester hours in economics and 3 semester hours in statistics. Entrance levels are at GS-5 and GS-7.

Those who have completed all requirements for advanced degrees or expect to complete the requirements within 9 months may be rated eligible for higher level positions. Those who have demonstrated superior ability in their graduate studies may receive eligibility at levels higher than that of nonsuperior graduates. Those with appropriate experience, in addition to their academic background, may be rated eligible for the higher level grades, depending upon the type, length, and quality of their experience.

Training

Opportunity for special-course study, as well as on-the-job training, is provided to employees, as deemed necessary, to broaden their knowledge and skill and to equip them for higher level assignments.

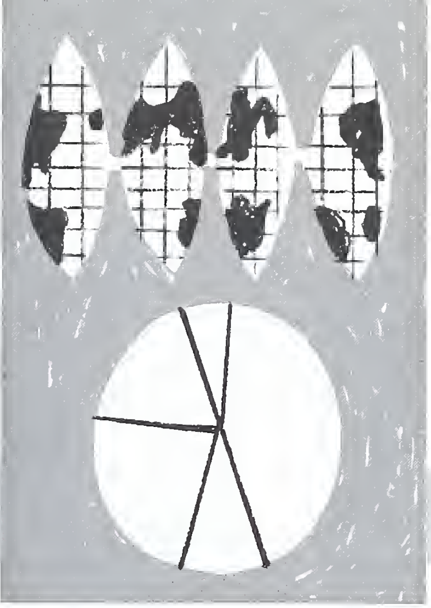
Promotional Opportunities

Prospects for promotion to higher level positions are excellent and are contingent upon demonstrated ability.

Where to Apply

For additional information, write to:
Division of Personnel
Office of Management Services
U.S. Department of Agriculture
Washington, D.C. 20250
or
Personnel Division
Soil Conservation Service
U.S. Department of Agriculture
Washington, D.C. 20250

United States Department of Agriculture



Agricultural Economist

(International)

GS-7—GS-12

■ The Foreign Agricultural Service offers career service in international activities to the graduate or undergraduate student majoring in economics or agricultural marketing. Included among these employees are both undergraduate students hired for summer employment and junior professionals who are beginning their careers after the completion of their college work.

Duties

Agricultural economists with the Foreign Agricultural Service work toward careers in international market development, economic analysis, overseas representation, and related activities. After a period of training and experience in Washington, D.C., they are considered for overseas assignments as agricultural attachés or assistant agricultural attachés.

Agricultural economists analyze and appraise the agricultural conditions, developments, and trends in foreign areas that significantly affect the agricultural aspects of U.S. foreign economic policy and international trade in American farm products. They analyze and interpret the statistical reports of agricultural attachés and other source materials on the agricultural resources, utilization, production, imports and exports, prices, finance, stocks, balance of payments, food and fiber requirements, and government and commercial trade policies and programs. Their findings are primarily used in developing the agricultural elements of foreign economic policy, in participating in international agricultural trade negotations and commodity agreements, and in administering import and export controls on agricultural products.

Role of the Agricultural Attaché

The agricultural attaché has been called the eyes and ears of the American farmer abroad. The phrase is apt but not all inclusive. Agricultural attachés stationed in countries abroad carry out a variety of tasks of great importance not only to American agriculture but also to the rest of our economy. Basically the agricultural attaché has three jobs:

- First, there is the job of reporting on important developments in foreign agriculture which might affect the American farmer. This information helps our farmers in their production and marketing procedures so that they may compete most effectively in world markets.
- A second job is to promote and to safeguard the market for U.S. products abroad. The potential of this aspect of the attaché's work is readily apparent when you consider both the great need for foodstuffs in various parts of the world and the enormous production rate of American agriculture.
- A third job is one of representation. If the agricultural attaché is to succeed in the two major objectives listed above, he must first create a climate of good will. He must achieve an understanding and acceptance of American agricultural policy among our customers abroad.

Advancement and Training

Opportunities for advancement and training are exceptionally good. The Foreign Agricultural Service is able to provide for individual supervision of its employees, for thoughtful orientation to job requirements, and for careful follow up and evaluation of performance. Employees are given every opportunity to achieve their highest potential, and to develop for assignments of greater responsibility. Young professionals are placed in operating positions in the Washington office of the Foreign Agricultural Service and given the opportunity to develop along the lines of their greatest capability. The Junior Professional Development Program provides a broad economic orientation of the agency, its problems, objectives, organization, programs, public relations, and intergovernmental relationships.

A junior professional who does well may expect to receive promotions regularly, as he becomes eligible, until he reaches grade GS–11. Beyond that grade, the opportunities for advancement are excellent for agricultural economists.

Qualification Requirements

Under this program the Foreign Agricultural Service is looking for young people who have completed all requirements for a degree in agricultural economics or agricultural marketing. These people are selected from eligibles in the Federal Service Entrance Examination. They are appointed at GS–5 or GS–7, depending on the grade for which they are eligible and rated. Graduate students in agricultural economics who have qualified in the Economist Examination (Agricultural Economist Option) are also selected; employment is generally at the GS–9 level or higher. We prefer that these young people have a definite interest in performing one or more tours of foreign service when the opportunity arises. Generally, the applicant should not expect to be assigned to an overseas post within the first 2 or 3 years.

Student Program

In the Student Program, undergraduate and graduate students are sought for the summer months. The need is limited to those who have completed at least 2 years of college and intend to continue with a major in agricultural economics. Undergraduates may be appointed at the GS–4 level, but must compete in a Summer Student Examination adminstered by the Civil Service Commission. Graduate students are appointed at Grades GS–5 and above, depending on the amount of education.

Scope of Activities

The Foreign Agricultural Service represents the U.S. Department of Agriculture at 61 overseas posts, covering over 100 principal foreign countries. This far-reaching and complex program is operated by a varied and highly professional staff in Washington, D.C., and a small staff at each overseas post.

How To Apply

If you desire more information on the Foreign Agricultural Service and how to become a part of it, write to:

Director, Personnel Division
Foreign Agricultural Service
U.S. Department of Agriculture
Washington, D.C. 20250

United States Department of Agriculture

Agricultural Statistician

GS-5, GS-7 and GS-9

- The agricultural estimating profession is passing through an exciting and challenging era due to the changes in agriculture and the development of new techniques in statistical methods. A hundred years ago one American farm worker produced enough food and other farm products for only five persons; today he produces enough for 40 persons. The technical revolution on U.S. farms presents an exciting picture, and agricultural statisticians, by measuring the change, are an integral part of it.

Career Opportunities

The technical staff of the Statistical Reporting Service is composed primarily of agricultural and mathematical statisticians who work in 44 field offices and in Washington, D.C. Some staff members go abroad to serve as technical advisers in developing nations.

Statisticians have five basic career fields open to them in SRS: Data collection and analysis; commodity specialization; automatic data processing; mathematical statistics; and management.

The typical SRS statistician begins his career in one of the field offices where most of the entrance positions are located. Under the supervision of the statistician in charge of the State office, he learns the rudiments of agricultural estimating procedures, particularly as they relate to that State. His training follows a definite program which includes periodic rotation of job assignments to provide for the development of skills in different commodity fields and under variable work conditions. New techniques, particularly those related to computers, comprise an important segment of training.

Work includes (1) sampling selection, (2) field enumerator training and supervision, (3) editing and analyzing data, (4) making official estimates, (5) writing technical reports to the Crop Reporting Board, and (6) disseminating statistical information on agriculture through news releases and publications.

Field offices prepare regularly scheduled estimates and statistical reports which are forwarded to Washington for review and publication. In addition, they collect and publish data of particular interest to their States.

State office assignments include numerous visits to farmers, ranchers, and business establishments in order to obtain sample data and to keep informed on current crop and livestock conditions.

Opportunities for Promotion

Of the 500 professional statisticians in SRS, one-fourth work in Washington and three-fourths work in field offices. GS-5 appointees are promoted to GS-7 after satisfactorily completing a 6-month training period. Length of time in grade GS-7 is a minimum of 1 year but usually less than 18 months. A statistician entering at GS-5 and performing at a satisfactory level may reach GS-11 in 3 to 4 years. Statisticians can enter at the GS-7 or GS-9 level, depending on qualifications.

After approximately 2 years in a field office, a new employee may be moved to another State office where he will broaden his knowledge and gain experience for 2 to 3 years with a somewhat different set of estimating problems. He may also enroll in training courses, usually at SRS expense, in order to increase his proficiency in statistical methods and other job-related subjects. Later opportunities will depend upon his demonstrated abilities, his interests, and the needs of the service.

Statisticians with above average performance and ability are usually offered assignments in the Washington office. These are usually at the GS–11 or 12 level. The Washington statisticians plan surveys, develop commodity programs, review the estimates submitted by the State offices, and as members of the Crop Reporting Board, prepare the final reports for the Nation. Statisticians travel extensively throughout the Nation to keep abreast of agricultural conditions.

After a minimum of 2 years of Washington duty, a statistician may be assigned to a more responsible position in Washington or in a field office, possibly as assistant head of a State office. SRS offers excellent opportunities for advancement. Almost half of the statisticians are currently in grades GS–12 to GS–16. The work is so diversified that a competent person can effectively develop a highly rewarding career in a stimulating and congenial atmosphere.

Qualifications

An undergraduate in his senior year or a college graduate may qualify as an agricultural statistician GS–5 under Civil Service Commission Announcement No. 415, provided he meets the academic requirements. A candidate with a bachelor's degree who has a "B" average or ranks in the upper 25 percent of his class is eligible for a GS–7. A candidate with a master's degree and demonstrated superior ability in graduate studies is eligible for GS–9 under CSC Announcement No. WA–8–05P. With regard to courses in statistics, mathematics, and agriculture, one may qualify under either the "regular" or the "alternate" set of requirements. "Regular" requires 15 semester hours of statistics and mathematics and 9 semester hours of agriculture or agricultural economics while "alternate" requires 9 hours of statistics and mathematics and 15 hours of agriculture or agricultural economics. In both cases at least 6 hours of statistics are required.

A statistician appointed under the "alternate" standard must complete enough additional hours of statistics within 3 years after appointment to meet the requirements under the "regular" standard. SRS has a training program that provides additional courses in statistical theory and sampling.

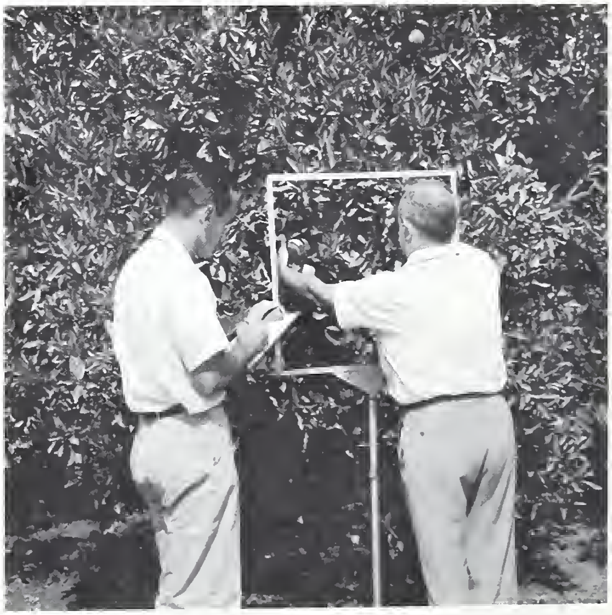
A candidate who has a "B" average or ranks in the upper 25 percent of his class will be rated eligible for GS–7. A candidate with a master's degree can qualify for GS–7, or if he demonstrated superior ability in his graduate studies, he may qualify for GS–9.

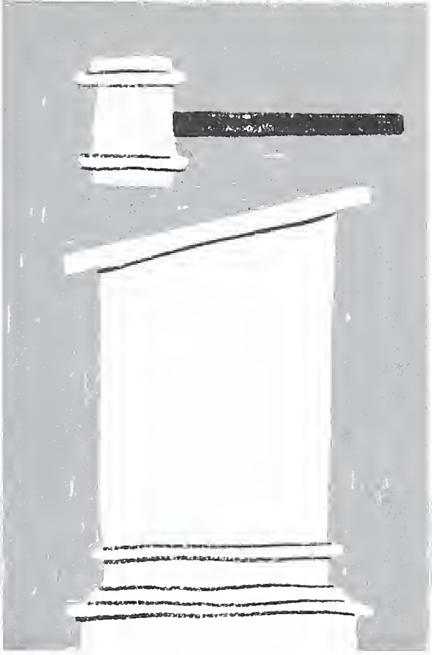
Another way of entering the career service is to begin as a student trainee. An undergraduate, usually a junior, can qualify for student trainee positions by passing a competitive examination. A student may be employed during vacation periods or part-time during the school year with a GS–4 rating. After graduation he is eligible for promotion to agricultural statistician without further examination.

How and Where to Apply

If you desire more information on a career in the Statistical Reporting Service, contact the agricultural statistician for your State, or write to:

Division of Personnel
Office of Management Services
U.S. Department of Agriculture
Washington, D.C. 20250





Attorney

GS–7 and GS–9

■ Under the direction of the General Counsel and his top staff, attorneys in the Department are engaged in legal work of great scope and variety.

Duties

Lawyers of the Office of the General Counsel, for example, (1) prepare both formal and informal legal opinions on questions arising in the administration of the Department's programs; (2) prepare and review administrative rules and regulations applicable to the public; (3) prepare and interpret contracts, mortgages, leases, deeds, and similar documents; (4) examine titles to lands to be acquired by the Department or accepted as security for loans; and (5) pass upon claims by and against the United States. They represent the Secretary in administrative proceedings; review for referral to the Department of Justice cases having criminal aspects; and, by special assignment, represent the Department in certain classes of cases on appeal.

Department attorneys handle legal work for the Rural Electrification Administration, involving corporate financing, municipal bond financing, and construction and operation of electric and telephone systems.

As corporate lawyers for the Commodity Credit Corporation and the Federal Crop Insurance Corporation, they handle an infinite variety of legal work that arises in dealings with large commercial enterprises, and other legal problems peculiar to corporate agencies of the United States.

Members of the office participate as legal advisers to Department officials in the development and administration of many varied and complex farm programs involving the expenditure of billions of dollars. They perform a broad variety of legal services in connection with loans made or insured by the Farmers Home Administration.

They prepare proposed legislation emanating from the Department; work with congressional committees and their staffs in drafting bills; prepare reports on bills; and interpret statutes for Department administrators.

Department attorneys serve as counsel in the formulation and implementation of many programs involving exports and imports of agricultural commodities.

They perform the varied legal services needed in managing the Department of Agriculture as an executive branch of the Federal Government.

Discoveries by Department of Agriculture research scientists result in many new patent matters each year, and Department lawyers prepare and handle patent applications and represent the Department in patent proceedings resulting from these discoveries.

Members of the Office of the General Counsel also serve as legal counsel for the Department in its administration of the national forests. Varied legal work is performed in connection with the Nation's soil and water conservation activities.

Lawyers of the Office of the General Counsel act as trial counsel in administrative proceedings of an adversary nature, with responsibility for pleadings, examination, and cross-examination of witnesses; oral argument; and filing briefs. They also act as presiding officers in reparation proceedings for damages between private litigants, and serve as counsel for the Secretary of Agriculture in proceedings before other Federal and State regulatory bodies.

In litigation in the Federal and State courts, Department lawyers serve as trial counsel and assistant trial counsel in a number of cases each year. In cases in which they do not participate in the trial itself, they evaluate evidence to determine the basis for action or defense; prepare the cases for trial; assist in pretrial proceedings, draft pleadings, actions, and briefs. Some brief and argue cases on appeal in the various Federal and State courts, including the U.S. Supreme Court.

Opportunities for Employment

Graduates of law schools approved by the American Bar Association who rank in the upper 50 percent of their graduating classes or who receive special honors, awards, or prizes, are eligible for appointment at grade GS–9. The entrance level for other graduates of accredited law schools is GS–7. The number of openings, both in Washington and in the field offices, varies, but about 10 to 15 new attorneys are needed each year. Graduates who are interested in advisory and opinion writing as well as trial work are sought. Courses in Administrative Law and Procedure are desirable.

Following is a list of field locations of the Office of the General Counsel:

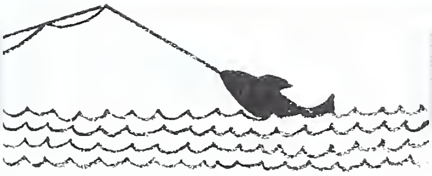
Arkansas—*Little Rock*
California—*San Francisco and Los Angeles*
Colorado—*Denver*
Georgia—*Atlanta*
Illinois—*Chicago*
Minnesota—*St. Paul*
Missouri—*Kansas City*
Montana—*Missoula*
New Mexico—*Albuquerque*
New York—*New York*
North Carolina—*Raleigh*
Oklahoma—*Stillwater*
Oregon—*Portland*
Pennsylvania—*Harrisburg*
Puerto Rico—*Santurce*
Texas—*Temple*
Utah—*Ogden*
Wisconsin—*Milwaukee*

How to Apply

Application forms and additional information may be obtained from the: Division of Personnel, Office of Management Services, U.S. Department of Agriculture, Washington, D.C., 20250. There is no written examination, but personal interviews, either in Washington, D.C., or at a field office, are required. For their convenience, graduates and students are urged to arrange for personal interviews in advance.

United States Department of Agriculture

Forester



GS-5 and GS-7

▪ The Forest Service must constantly improve the utilization and protection of forest lands to meet the ever increasing demands made on our forest and range lands. Forests represent our greatest renewable natural resource, and must be maintained and developed for the use of future generations.

Job of the Forester

Forestry today requires a combination of mathematics, human relations, science, engineering, and business skills, as well as professional forestry competence. It is the job of the forester to help meet the need for forest products and forest use, and at the same time develop the forests for other multiple uses on a sustained yield basis.

Forest Service operations offer opportunities for a broad variety of duties in national forest administration, research, State and private forestry cooperation, or in foreign forestry.

Foresters devise methods of protecting the forest from fire, disease, and insects. Flood control, soil conservation, and watershed improvement are also constant responsibilities. Some foresters negotiate with buyers and conduct timber sales. Others, in cooperation with the States, manage wildlife habitats that include one-third of all big game in the country and 80,000 miles of trout streams. With the need for campgrounds, trails, swimming areas, and other facilities multiplying, the development of recreation facilities in the national forests is a rapidly increasing part of the forester's responsibility. The coordination of range resource management within the forest land multiple use concept is an important part of most forester jobs. Research foresters explore the many complex problems of utilizing and managing forest and rangeland resources. The results of their research are made available to Government and industry. These are just a few of the many sides of the job.

Training and Development

A beginning forester is provided with valuable training and experience. His career usually begins on a ranger district. There he gets practice in actual field operations, and training from many experienced people who give him opportunities to learn about the varied phases of land management.

He becomes part of a continuing training and development program that will help him do a good job at every stage of his career and in several parts of the Nation. Self-development and responsibility are emphasized. Special assignments, designed to use his ability and formal education, will be made. He will be able to choose a career from among the several specialties of wildland management. He may elect a generalist role. Opportunities for reassignment between forests and regions will also broaden his work experience.

The Forest Service maintains nine regional offices within the United States. Within these nine regions are 154 National Forests divided into 810 ranger districts. For research there are eight experiment stations, the Institutes of Tropical Forestry and Northern Forestry, the Forest Products Laboratory, and more than 80 other research installations located in 50 States, Puerto Rico, and the Virgin Islands.

A forester knows the satisfaction of helping to protect and manage valuable resources for future generations. He relates the resource job to the social needs of America. He knows the pleasure of accomplishment that results from physical and mental alertness and intensive training. He takes pride in being a member of an organization with a reputation born out of the completion of tough assignments.

Foresters usually enter at GS–5 or GS–7, depending on their qualifications and experience. Research foresters can enter at higher levels on the basis of advanced degrees. After this, promotions are awarded on the basis of ability and competition between foresters.

Qualification Requirements

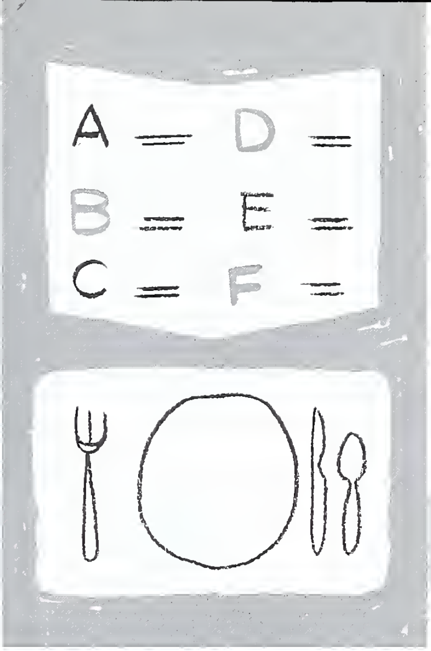
Forestry requires professional training to cope with the many technical problems involved. Requirements for GS–5 are a bachelor's degree with at least 24 semester hours in specialized fields of forestry. Lacking a bachelor's degree, an applicant may qualify for consideration if he has 30 semester hours in science or engineering, including 24 hours in forestry, and additional work experience. Qualifications for GS–7 are the same as for GS–5 plus either 1 year of graduate study or professional experience. An applicant also may be eligible for GS–7 if he is a member of an accredited honor society, or earned a master's degree in forestry, or maintained a "B" average in college, or graduated in the upper 25 percent of his class, or otherwise attained specified scholastic achievements.

How to Apply

You can apply for these positions up to 9 months before graduation from college. To apply, fill out a Form 171, "Personal Qualifications Statement," showing the title and number of the examination (Forester No. WA–7–43); enclose your college transcript and send your application to the Interagency Board of U.S. Civil Service Examiners, 1900 E Street NW., Washington, D.C. 20415.

You can get more information on qualifications and other requirements, by obtaining Civil Service Commission Announcement No. WA–7–43 from your local post office. You can also write to one of the Forest Service's regional offices. Information on national forest administration may be obtained by writing regional offices in Missoula, Mont.; Denver, Colo.; Albuquerque, N. Mex.; Ogden, Utah; San Francisco, Calif.; Portland, Oreg.; Milwaukee, Wis.; and Juneau, Alaska. Also, for information on State and private area offices write to the Forest Service offices in Upper Darby, Pa., and Atlanta, Ga.

For information on forestry research, contact one of the U.S. Forest Service experiment stations in the following cities: Ogden, Utah; St. Paul, Minn.; Upper Darby, Pa.; Portland, Oreg.; Berkeley, Calif.; Fort Collins, Colo.; Asheville, N.C.; and New Orleans, La. Write the U.S. Forest Service, Forest Products Laboratory, Madison, Wis., for information on research in forest products. The Institute of Tropical Forestry, Rio Piedras, P.R., conducts research and other cooperative research projects including intensive training seminars in tropical wildland resources.



Home Economist

GS–5 and GS–7

■ The home economist, as a member of the Consumer and Marketing Service, enables people all over the Nation to eat more and better meals.

Duties

The home economist's work for the school food service helps children eat better and learn what to eat to stay healthy.

She also advises the people in the divisions of consumer food programs of C&MS (1) on showing needy people how to benefit from the commodity distribution or food stamp programs and (2) on helping economy-minded housewives shop for, plan, and prepare better meals.

The C&MS home economist receives a wide variety of assignments and gets to know and work with many different people.

Her duties include developing and applying techniques for quantity food preparation, menu planning, recipe development, food purchasing, food cost accounting, food service equipment and layouts, sanitation, work organization and job scheduling, and adaptation of nutritional research to practical workaday standards.

The home economist may travel to many States to analyze the effectiveness of the school food service in both private and public schools.

In doing all these jobs the home economist meets and works with college officials; State departments of education, health, and welfare; school officials; and school lunch workers.

The college graduate usually starts as a GS–5 or, with working experience, as a GS–7. She is given many different assignments to provide on-the-job training under supervision in all phases of the school food service, as well as the food programs for needy people.

Advancement

Opportunities for advancement are very good as the beginning home economist gains experience in the jobs assigned to her. She may in time advance to the GS–13 level, or higher.

Positions for home economists are available in Washington, D.C.; Atlanta, Ga.; Dallas, Tex.; San Francisco, Calif.; Chicago, Ill.; and New York City.

Employment Specifications

Applicants must have a degree in home economics with course work in two or more of the areas of foods, nutrition, and institution management.

Applicants must also pass the Federal Service Entrance Examination.

Employment Procedures

For further information, you may write to one of the following offices nearest your home:

Personnel Division
Consumer and Marketing Service
U.S. Department of Agriculture
Washington, D.C. 20250

Field Operations Branch, Personnel Division
Consumer and Marketing Service
U.S. Department of Agriculture
536 South Clark Street
Chicago, Ill. 60605

United States Department of Agriculture

Landscape Architect

▪ American families are taking an increasingly active interest in their environment. They are sincerely concerned with resource harvest, wilderness, highway design, nature interpretation, and the esthetics involved in landscape management of public lands. Because of this trend, Forest Service landscape architects are playing a progressively larger role in making the national forests more usable and more enjoyable for the American people. This is a complex assignment. While full consideration is given to natural beauty and the principles of environmental design, national forest installations must also be designed for varying degrees of public use.

Work of the Landscape Architect

Landscape architects in the Forest Service perform the professional tasks of environmental design for vast management zone and the site selection, design, planning, construction, and maintenance of recreation and administrative facilities and areas. A broad knowledge of fundamental principles of landscape architecture, as applied specifically to wildlands and the scenic and recreation resources found on these lands, is constantly utilized. In his daily work, the landscape architect helps determine the extent to which land management objectives may be altered or blended in the interest of preserving scenery and recreation values. He also works cooperatively with other career Forest Service specialists such as engineers, architects, foresters, soil scientists, geologists, accountants, economists, and research scientists. With them, he obtains the highest degree of scenic and recreation protection and enjoyment possible under the multiple-use concept of management.

A landscape architect in the Forest Service is frequently requested to express his views on the investigation, inventory, and selection of lands which have important features of interest to the public. Master-planning and site design for the conservation or development of these lands require his talents. He is asked to submit recommendations, designs, and comments concerning the planning of scenic roads, timber-harvesting areas, parking areas, watersheds, recreation and sanitary facilities, nature trails, and visitor information structures for minimum disturbance to the natural conditions and the most dramatic presentation of scenic values to the public. His recommendations are sought in the selection of the best available tract of land for administrative headquarters for national forest, ranger district, or other stations. He prepares the site plans, grading plans, and planting designs necessary in their development.

Camping, picnicking, boating, skiing, and scenic driving are among the important recreation activities in the national forests and require a sizable capital outlay of funds each year to accommodate the public property. Landscape architects are needed to design additional facilities for all recreational uses. This will result in advancement opportunities at the various administrative levels as the quantity and complexities of recreation planning increase.

Training

Upon accepting a position with the Forest Service, the landscape achitect immediately begins to receive professional training and experience. Regional design seminars are periodically scheduled to provide a field-oriented academic atmosphere in which up to two dozen forest landscape architects may exchange ideas and experiences and be informed of the latest professional techniques and equipment. Affiliation with his professional society is encouraged. Other experience is furnished and training courses provided, depending upon the career-ladder steps attained or desired.

Location of Jobs

The Forest Service is one of the world's major employers of landscape architects. Its field units are widely dispersed and found in almost every State. Beautiful forest scenery is found in all national forests, and opportunities for the families of employees to enjoy outdoor recreation activities are greatly varied.

Qualification Requirements

Landscape architects enter the Forest Service at the GS–5 and GS–7 levels. A degree in landscape architecture or landscape design is a Civil Service requisite. Those having had courses or experience in surveying, conservation, civil engineering, public speaking and writing are particularly needed for Forest Service positions. Entrance at the GS–7 level is possible if the applicant attained a master's degree or maintained a "B" average or better in college or graduated in the upper 25 percent of his class, qualified for an accredited honor society or attained other specified scholastic levels. Graduate study, advanced degrees, or professional experience may qualify you for entrance at higher levels.

Promotional Opportunities

Landscape architects entering the Forest Service are usually assigned to recreation design and planning duties on a national forest or in a regional office. Considerable fieldwork is required in a landscape architect's early career. As he gains experience and assumes supervisory responsibilities over others, less field work is needed. Then his responsibilities involve the more important problem areas and the review of work done by others. The career ladder extends from the ranger district to the forest, region, and finally to the Washington office of the Forest Service.

How to Apply

Applications will be accepted from undergraduate and graduate students in accredited landscape architecture colleges who expect to complete within 9 months of the date of filing application all the courses required to qualify in this examination.

For information on employment as a landscape architect with the Forest Service, contact the U.S. Forest Service regional office in the following cities: Missoula, Mont.; Denver, Colo.; Albuquerque, N. Mex.; Ogden, Utah; San Francisco, Calif.; Portland, Oreg.; Atlanta, Ga.; Milwaukee, Wis.; and Juneau, Alaska.

United States Department of Agriculture

Librarian

GS–7 through GS–12

■ Since researchers depend on publications in many different fields, the National Agricultural Library maintains a solid collection in a broad range of scientific materials. The backbone of this collection, acquired in 50 different languages, consists of works in general agriculture, botany, zoology, chemistry, veterinary medicine, forestry, plant pathology, livestock, poultry, entomology, and agronomy.

The agricultural librarian works closely with this varied and highly technical collection to bring the world literature in agriculture and related sciences to Department of Agriculture research workers and to all others who are seriously interested in any facet of agriculture.

Most positions for agricultural librarians are in Beltsville, Md. Some vacancies also exist in agency field libraries.

Nature of the Work

Acquisitions librarians select publications from bibliographical and other sources, search selected citations to determine needs, and initiate requests for procurement by purchase, gift, or exchange. Approximately 10,000 titles are ordered each year.

Bibliographers plan, develop, and compile the "Bibliography of Agriculture," a comprehensive monthly index to the literature in agriculture and related sciences; perform extensive literature searches and prepare special lists of literature sources to meet specific demands of researchers; and compile and publish other specialized agricultural bibliographies.

Catalogers describe acquired material and assign pertinent subjects and classification; prepare original manuscript for cards which are printed and sold by the Library of Congress; and develop cataloging procedures, the system of subject headings, and the classification scheme to meet the needs of subject specialists.

Lending librarians develop plans and procedures for provision of reader services through loans to authorized individuals and to other agencies; for photocopies in lieu of loan and for sale; for application of interlibrary loan codes; and for housing, servicing, and preserving the collection.

Reference librarians provide all types of reference services to answer requests in person, by telephone, or by mail. Information is derived by consulting publications in the collection.

Administrative librarians direct and supervise the types of library functions previously described in various organizational units in Washington, D.C., or at branch or agency field libraries.

Field librarians supervise and administer all types of library functions at agency field libraries, including one, or a combination, of the duties previously described. Service is given primarily to concentrations of professional personnel located at various Department of Agriculture research installations throughout the United States.

Qualification Requirements

Applicants for librarian positions in grades GS-7 through GS-12 must have successfully completed one of the following: (1) a full 4-year course of study in an accredited college or university, including or supplemented by at least 24 semester-hour credits in library science; (2) 4 years of successful and progressive experience in library work; or (3) any time and quality equivalent combination of 1 and 2. In addition to these requirements applicants must have had successful and progressive experience in professional library work which included the performance, supervision, or direction of one or more of the major library functions as follows: 1 year of additional experience for GS-7; 2 years for GS-9; and 3 years for GS-11 and GS-12.

Substitution of graduate study for experience: Completion of all requirements for a master's degree, or completion of 1 full year of graduate study in library science in an accredited college or university may be substituted for 1 year of the additional required experience and will qualify for GS-7.

Persons who have completed, within the last 2 years, all requirements for a master's degree in library science at an accredited college or university may be rated eligible for a GS–9 if in the opinion of the appropriate faculty member of their college or university they have demonstrated superior ability in their graduate studies.

Knowledge of one or more foreign languages and education or experience in the biological sciences is desirable but not absolutely essential. Applicants for all grades who have completed 4 or more years of college education that included or was supplemented by at least 24 semester-hour credits (or equivalent) in library science will not be required to take a written examination.

Advancement

Under the Career Service Program of the National Agricultural Library, vacant positions above the entrance level are usually filled by promotion or reassignment from within the Library, as long as well-qualified people are available.

Vacancies in the Library are filled on the basis of merit by employees who meet the qualification standards, with consideration to the employee's interests and desires. Consideration is also given to professional and technical qualifications, supervisory ability when required, efficiency, length of service, personality traits, working relationships, potential for advancement, suggestion and other awards, and other similar evaluative factors.

Additional training, other than that acquired in the position, is available through:

- Government Employees Training Act
- U.S. Department of Agriculture Graduate School
- Several local universities

How To Apply

FOR FURTHER INFORMATION and application forms, please write the:

Division of Personnel
Office of Management Services
U.S. Department of Agriculture
Washington, D.C. 20250

United States Department of Agriculture

Plant Pest Control Inspector

GS-5 and GS-7

- The plant pest control inspector works on cooperative programs with interested States and the Republic of Mexico to suppress or eradicate agricultural plant pests. Emphasis is placed on pests of foreign origin and those native pests capable of sudden outbreaks which individual growers cannot control. All organized programs to confine, suppress or eradicate plant pests are cooperative with the parties concerned.

Nature of the Work

The plant pest control inspector has a major role in this program. He is a key field employee who is in contact with the public at the grass roots level. He is the Agency representative who works with the farmer, the urbanite, and many industry people. The work of the PPC inspector and those he supervises determines success or failure of the program.

The specific activities of the Plant Pest Control Division include:

- Surveying and detecting the presence of and determining the distribution and abundance of agricultural pests;
- Administration of programs to control, suppress, or eradicate foreign and native pests by using insecticides, herbicides, fumigants, biological controls, and cultural practices;
- Utilization of research results to develop effective pest control materials and equipment;
- Working closely with producers, shippers, and carriers to insure compliance with procedures and treatment required by plant quarantines;
- Promoting the safe use of pesticides and monitoring the effects of pesticide residues on the environment.

Training

Plant pest control inspectors are appointed directly to their first work location, where they enter an on-the-job training program. The Plant Pest Control Division leadership believes training can be best achieved by a supervisor-trainee team relationship which keeps the training close to day-to-day program operations. Therefore, the training program is carried out primarily by the supervisor. The first objective in the program is to provide the employee with the basic operating skills. The next goal is that of coaching, counseling, and giving the employee special course studies and seminars to stimulate him to prepare for broader responsibilities. The complexity of the national and international scopes of these activities in operating more than 20 progressively changing cooperative plant pest control programs affords much variety and challenge.

Work Location

The Plant Pest Control Division has its headquarters in Hyattsville, Md. It employs inspectors in 50 States, in Mexico, and in several countries in the Near and Middle East.

Employment Specifications

To qualify for GS-5 plant pest control inspector requires:

- Completion of a 4-year course leading to a bachelor's degree in an accredited college or university with major study in one of the biological sciences which included at least 20 semester hours in one or in any combination of the following: entomology, botany, plant pathology, nematology, horticulture, mycology, invertebrate zoology, or closely related subjects; or
- Course work totaling 30 semester hours in biology and related natural and physical sciences including the 20 hours of specified course work, plus appropriate experience and education which, when combined with the required courses, will total 4 years of education and experience and give a technical knowledge comparable to that which would have been acquired through successful completion of a 4-year college course.

To qualify for GS-7 plant pest control inspector an applicant must meet the qualifications for GS-5 plus the following requirements:

- One full year of graduate study (30 semester hours) or all the requirements for a master's degree, with major study in an appropriate field where the study is related to plant pest control inspection work; or
- One year of appropriate experience; or a college average of "B" or better, rank in the upper 25 percent of the class, or possess other specified scholastic achievement.

Employment Procedures

If you are interested in these positions, you may apply under the examination for plant quarantine inspector and plant pest control inspector. Copies of this announcement are available in first- and second-class post offices, college placement offices, and from the

Personnel Division
Agricultural Research Service
U.S. Department of Agriculture
Washington, D.C. 20250

United States Department of Agriculture

Veterinarian

(ARS)

GS–9, 11, 12, 13, 14, 15

■ Veterinarians are employed in regulatory and research programs in the Agricultural Research Service. They combat outbreaks of animal diseases, conduct research for the control and eradication of diseases, and cooperate in the protection of the Nation's food production.

The Job

Veterinarians inspect livestock at stockyards or ports of entry into the United States. Also, they inspect licensed establishments producing veterinary biologics. Veterinarians administer tests for diseases, conduct diagnostic studies in laboratories, and conduct research on livestock and poultry diseases.

- Veterinarians contact livestock owners to arrange for testing herds for brucellosis and tuberculosis; test the herds and observe the results; identify infected animals; and recommend disposition of diseased animals.
- Veterinarians inspect the manufacture of a large variety of veterinary biologics; test these biologics for purity and efficacy; and develop standard requirements to evaluate the biologics. In the process of inspecting, the veterinarians determine whether there has been proper treatment and handling of production animals and whether the antigens used for hyperimmunization are identified, grown, prepared, concentrated, and standardized, in accordance with the firm's outline of production.
- Veterinarians inspect dealers and research facilities to enforce the humane handling, care, treatment, sale, and transportation of laboratory animals used for research, experimentation, or other purposes.
- Veterinarians certify to the eligibility-for-free-entry of purebred animals imported by U.S. citizens for breeding purposes.
- Veterinarians determine the symptoms, pathology, diagnosis, treatments, and methods of control and prevention of diseases or conditions caused by bacteria, viruses, rickettsia, fungi, and internal and external parasites.

The Animal Health Division employs veterinarians in its nationwide cooperative programs to control and eradicate livestock diseases. This Division insures the safe and humane transport of animals within the United States and detects and prevents the spread of communicable diseases of poultry and livestock in interstate commerce.

The Division also employs veterinarians to protect the livestock and poultry industries of this country from diseases of foreign origin and provides for the inspection, humane treatment, and safe transport of animals for export. The Veterinary Biologics Division is concerned with the inspection, testing, and development of standards of potency and purity for veterinary biologics. Many of the veterinarians in the Division are used in laboratory work of this nature.

Veterinarians working with the regulatory programs serve the consumers by making certain that an adequate supply of wholesome food of animal origin is available. They are recognized throughout the world for their achievement in preventing the entrance of foreign livestock diseases, in controlling and eradicating animal diseases present in our livestock, and in the preparation and testing of vaccines and serums. Veterinarians are stationed in many locations throughout the United States. There are excellent opportunities because a policy of promotion-from-within is followed. Therefore, employees are in line for promotion to higher grades on the basis of the Division's need and the demostrated ability of the individual.

Research veterinarians find that association with outstanding scientists, many ranking as authorities in their fields, broadens their research horizons and develops their individual capabilities. Contacts and collaboration with leaders in industry, with scholars from academic circles, and with scientists at widely known research centers enrich the program of the Agricultural Research Service and stimulate professional growth. In-service training through seminars, meetings, and other techniques is common practice.

Employment Specifications

Generally, completion of a course of study resulting in the degree of doctor of veterinary medicine or an equivalent degree in veterinary medicine from an accredited school of veterinary medicine is required. Most veterinarians in the Agricultural Research Service are initially employed at grade GS–9 or GS–11.

To qualify for grades higher than GS–9, the following education is required:

- For GS–11, 1 year of responsible professional veterinary experience or 1 year of post graduate research experience.
- For GS–12, 2 years of responsible professional experience showing a thorough knowledge of the field of veterinary medicine related to the field of specialization, the ability to perform difficult professional work requiring judgment and initiative, and skill in developing and maintaining effective working relationships with individuals and groups. For research positions, one of the 2 years must show the ability to perform research at this level.
- For positions at higher levels, GS–13, 14, and 15, progressively more responsible experience is required. For regulatory divisions, experience with difficult and very complex veterinary programs related to the field of specialization is required. For research positions, at least 3 years of experience showing the ability to perform advanced research in the field of veterinary medicine are required.

Graduate study may be substituted for experience as follows in qualifying for research positions:

1. Successful completion of all requirements for a master's degree may be substituted for 1 year of experience and qualifies in full for GS–11.

2. Successful completion of all requirements for the doctor's degree, including the dissertation, may be substituted for 2 years of the required experience and qualifies in full for GS–12.

Employment Procedures

If interested in these positions, you may apply under the veterinarian examination. Copies of this announcement are available at first- and second-class post offices, college placement offices, and the Personnel Division, Agricultural Research Service, U.S. Department of Agriculture, Washington, D.C. 20250.

United States Department of Agricultu.

Veterinarian, Meat and Poultry Inspector

GS-9

■ Inspection of the Nation's meat and poultry supply to assure its wholesomeness and safety for consumption is one of the basic services necessary to the public health. Each year, more than 60 billion pounds of meat and poultry—all of these products shipped in interstate and foreign commerce—is examined by inspectors in the USDA's Consumer and Marketing Service. The veterinarian is the key person in this vital service, with important responsibility for its integrity and its effective operation.

Duties

Some 1,400 veterinarians are employed by the Federal meat and poultry inspection programs, along with nearly 5,000 lay inspectors. They are stationed in towns throughout the Nation.

As a member of this team, the veterinarians is:

- The medical authority in the slaughtering plant
- The food hygienist in the processing plant
- A manager and supervisor.

Through his knowledge of animal diseases, pathology, pharmacology, anatomy, bacteriology, and sanitation, he is able to detect abnormalities and diseases which render meat and poultry unsanitary or unwholesome.

His duties in the plant extend to making final determinations on condemnations and destruction of carcasses found unfit for human consumption, sanitation inspections, and dealing with plant management.

In a processing plant, he may have responsibility for checking on all ingredients that go into processed meat and poultry products such as frozen pies, hams, soups, or other ready to heat and eat products.

Throughout his career, he continues to receive training in management and new technical developments. He also benefits through continued close association with other veterinarians in the same field of work.

Training and Advancement

The veterinarian begins his career as a GS–9. He receives intensive training for the first 6 months of his employment. After successfully completing the training period, he is promoted to GS–11. A candidate who has 1 year of experience, in addition to the required degree in veterinary medicine, may begin at the GS–11 level. At the higher grade levels the veterinarian supervises the inspections performed by poultry or meat inspectors assigned to him at plant locations. A person who demonstrates unusual professional ability, sound judgment, initiative, and administrative and supervisory potential can progress rapidly. He must be willing and able to see that Federal inspection programs are carried out energetically and fairly. Also he must be strong physically and mentally, willing to travel and relocate, and capable of dealing with the public and plant managers.

Employment Specifications

Applicants must have a degree of Doctor in Veterinary Medicine or its equivalent in order to qualify for veterinarian, GS–9. One year of additional appropriate experience may qualify for the GS–11 level.

Graduates of foreign schools of veterinary medicine may be eligible for Federal employment as a veterinarian in the meat and poultry inspection programs. These applicants must have completed a curriculum evaluated by the American Veterinary Medical Association as equivalent to that of an accredited school of veterinary medicine or pass a written test in veterinary medicine administered by the American Veterinary Medical Association.

Employment Procedures

For further information applicants may write the:

Field Operations Branch
Personnel Division
Consumer and Marketing Service
U.S. Department of Agriculture
536 South Clark Street
Chicago, Ill. 60605

SECTION IV

APPENDIX

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College Major and Jobs A
Employment Opportunities by Agencies B
Interagency Boards of U.S. Civil Service Examiners C

APPENDIX A

OPPORTUNITY INDEX COLLEGE MAJOR AND JOBS

	Page	Any Major	Accounting	Architecture	Agriculture	Agricultural Business	Agricultural Education	Agricultural Sciences	Biological Sciences	Business Administration	Economics	Engineering	Forestry	Home Economics	Journalism	Law	Library Science	Physical Sciences	Public Administration	Social Sciences	Statistics and Math	Veterinary Medicine
Careers in Administration																						
Administration	1.01, 1.09	●	●			●	●			●	●				●	●	●		●	●	●	
Agricultural Writer-Editor	1.05				●			●	●						●		●					
Auditor and Special Agent	1.07		●			●				●	●					●			●			
Computer Programer and Analyst	1.13	●																				
Secretary (Overseas)	1.15	●																				
Careers in Agricultural Marketing																						
Agricultural Market Reporter	2.01–2.05				●	●		●			●											
Agricultural Marketing Specialist (Commodity Programs)	2.07				●	●				●	●								●			
Agricultural Marketing Specialist (Fruits and Vegetables—Agreements & Orders)	2.09				●	●				●	●								●			
Agricultural Marketing Specialist (Fruits and Vegetables—Regulatory)	2.11		●		●	●		●	●	●	●					●			●			
Careers in Agricultural Programs																						
Agricultural Commodity Grader (Grain)	3.01				●	●			●		●			●				●				
Agricultural Commodity Grader (Meat)	3.03							●														
Agricultural Commodity Grader (Processed Fruits and Vegetables)	3.05				●	●		●	●		●			●				●				
Agricultural Management Specialist	3.07				●	●	●	●		●	●	●							●			
Consumer Food Program Specialist	3.09	●	●							●	●								●	●		
Crop Insurance Fieldman and Supervisor	3.11				●	●	●	●			●											
Operations Trainee (Utilities)	3.13		●							●	●								●			
Plant Quarantine Inspector	3.15								●													
Range Conservationist	3.17–3.19				●			●	●				●									
Soil Conservationist	3.21				●			●				●	●									
Warehouse Examiner	3.23				●	●	●	●		●	●											

APPENDIX A—Continued

OPPORTUNITY INDEX COLLEGE MAJOR AND JOBS

	Careers in Research Science		Agronomist	Chemist	Entomologist	Food Technologist—Marketing	Forest Service Research	Geneticist	Horticulturist	Microbiologist	Plant Pathologist	Plant Physiologist—Marketing	Soil Scientist	Careers in Engineering	Agricultural Engineer	Chemical Engineer	Civil (Highway) Engineer	Electrical Engineer	Engineers in Soil Conservation (Agricultural and Civil)	Industrial Engineer	Mechanical Engineer	Careers in Other Professions	Agricultural Economist	Agricultural Statistician	Attorney	Forester	Home Economist	Landscape Architect	Librarian	Plant Pest Control Inspector	Veterinarian
		Page	4.01	4.03	4.05–4.07	4.09	4.11	4.17	4.19	4.21	4.23–4.25	4.27	4.29		5.01	5.03	5.05	5.07	5.09	5.11	5.13		6.01–6.03	6.05	6.07	6.09	6.11	6.13	6.15	6.17	6.19–6.21
Any Major																															
Accounting																															
Architecture							●																					●			
Agriculture			●																					●							
Agricultural Business																								●							
Agricultural Education																															
Agricultural Sciences			●				●		●				●																	●	
Biological Sciences					●	●	●	●	●	●	●	●	●																	●	
Business Administration																															
Economics							●																●	●							
Engineering							●								●	●	●	●	●	●	●										
Forestry							●																			●					
Home Economics																											●				
Journalism																															
Law																									●						
Library Science																													●		
Physical Sciences				●		●	●						●																		
Public Administration																															
Social Sciences							●																								
Statistics and Math							●																	●							
Veterinary Medicine																															●

APPENDIX B

EMPLOYMENT OPPORTUNITIES BY AGENCY

AGRICULTURAL RESEARCH SERVICE

	Page
Agricultural Engineer	5.01
Agronomist	4.01
Chemical Engineer	5.03
Chemist	4.03
Computer Programer and Analyst	1.13
Entomologist (Entomology Research)	4.05
Entomologist (Stored Products Insects Research)	4.07
Food Technologist—Marketing	4.09
Geneticist	4.17
Horticulturist	4.19
Industrial Engineer	5.11
Microbiologist	4.21
Plant Pathologist	4.23
Plant Pathologist—Marketing	4.25
Plant Pest Control Inspector	6.17
Plant Physiologist—Marketing	4.27
Plant Quarantine Inspector	3.15
Veterinarian	6.19

AGRICULTURAL STABILIZATION & CONSERVATION SERVICE

Agricultural Marketing Specialist (Commodity Programs)	2.07
Computer Programer and Analyst	1.13

CONSUMER AND MARKETING SERVICE

Agricultural Commodity Grader (Grain)	3.01
Agricultural Commodity Grader (Meat)	3.03
Agricultural Commodity Grader (Processed Fruits and Vegetables)	3.05
Agricultural Economist	6.01
Agricultural Writer-Editor	1.05
Consumer Food Program Specialist	3.09
Dairy and Poultry Market Reporter	2.01
Fruit and Vegetable Market Reporter	2.03
Fruit and Vegetable Marketing Specialist (Agreements and Orders)	2.09
Fruit and Vegetable Marketing Specialist (Regulatory)	2.11
Home Economist	6.11
Livestock and Meat Market Reporter	2.05
Veterinarian—Meat and Poultry Inspection	6.21
Warehouse Examiner	3.23

ECONOMIC RESEARCH SERVICE

Agricultural Economist	6.01

FARMER COOPERATIVE SERVICE

Agricultural Economist	6.01

FARMERS HOME ADMINISTRATION Page
Agricultural Management Specialist 3. 07
Computer Programer and Analyst 1. 13

FEDERAL CROP INSURANCE CORPORATION
Crop Insurance Fieldman and Supervisor 3. 11

FOREIGN AGRICULTURAL SERVICE
Agricultural Economist (International) 6. 03
Secretary (Overseas) 1. 15

FOREST SERVICE
Agricultural Economist 6. 01
Business Management 1. 09
Civil Engineer 5. 05
Computer Programer and Analyst 1. 13
Forest Service Research 4. 11
Forester 6. 09
Landscape Architect 6. 13
Mechanical Engineer 5. 13
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NATIONAL AGRICULTURAL LIBRARY
Librarian 6. 15

OFFICE OF GENERAL COUNSEL
Attorney 6. 07

OFFICE OF INSPECTOR GENERAL
Auditor and Special Agent 1. 07

OFFICE OF MANAGEMENT IMPROVEMENT
Computer Programer and Analyst 1. 13

OFFICE OF MANAGEMENT SERVICES
Administration (General) 1. 01

RURAL ELECTRIFICATION ADMINISTRATION
Electrical Engineer 5. 07
Operations Trainee (Utilities) 3. 13

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Agronomist 4. 01
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STATISTICAL REPORTING SERVICE
Agricultural Statistician 6. 05
Computer Programer and Analyst 1. 13

APPENDIX C

INTERAGENCY BOARDS OF U.S. CIVIL SERVICE EXAMINERS

State and City	Area Served
ALABAMA: (1) Huntsville, Southerland Building, 806 Governors Drive SW., ZIP 35801, Phone (205) 539–3581;	North Alabama
(2) Mobile, 167 St. Louis Street, ZIP 36602, Phone (205) 433–1562	South Alabama (excluding Russell County) and Florida Counties west of Apalachicola River (see Macon, Ga. Board)
ALASKA: (1) Anchorage, Hill Building, 632–6th Avenue, ZIP 99501, Phone (907) 277–1446	Entire State
ARIZONA: (1) Phoenix, Balke Building, 44 West Adams Street, ZIP 85003, Phone (602) 261–4731	Entire State (except the Navajo-Hopi Indian Reservations) (see Albuquerque, N. Mex. Board)
ARKANSAS: (1) Little Rock, 923 West Fourth Street, ZIP 72201, Phone (501) 372–5842	Entire State (except Crittenden and Miller Counties) (see Tennessee Board and Dallas, Tex., Board)
CALIFORNIA: (1) Los Angeles, 851 South Broadway, ZIP 90014, Phone (213) 688–3360;	Kern, Los Angeles, Orange, San Luis Obispo, Santa Barbara, and Ventura Counties
(2) Sacramento, 455 Capitol Mall, Suite 125, ZIP 95814, Phone (916) 449–3441;	Sacramento Area and northern California
(3) San Bernardino, 380 West Court Street, ZIP 92401, Phone (714) 884–3111 (Ext. 395);	Riverside and San Bernardino Counties
(4) San Diego, 1400 Fifth Avenue, Suite 100, ZIP 92101, Phone (714) 293–6165;	San Diego and Imperial Counties
(5) San Francisco, 450 Golden Gate Avenue, Box 36122, ZIP 94102, Phone (415) 556–6668	San Francisco Area and central California
COLORADO: (1) Denver, Room 203, P.O. Building, 18th and Stout Streets, ZIP 80202, Phone (303) 297–3506	Entire State
CONNECTICUT: (1) Hartford, Room 716, Federal Building, 450 Main Street, ZIP 06103, Phone (203) 244–3096	Entire State and Berkshire; Franklin; Hampden; and Hampshire Counties in western Massachusetts
DELAWARE: (1) Wilmington, U.S. Post Office and Courthouse. 11th and King Streets, ZIP 19801, Phone (302) 658–6911 (Ext. 540)	Entire State
FLORIDA: (1) Orlando, 123 South Court Avenue, ZIP 32801, Phone (305) 425–0511	All of State east of Apalachicola River (see Mobile Ala. Board)
GEORGIA: (1) Atlanta, 275 Peachtree Street NE., ZIP 30303, Phone (404) 526–4315;	North Georgia (except Walker County) (see Memphis, Tenn. Board)
(2) Macon, Federal Building, 451 College Street, ZIP 31201, Phone (912) 743–0381 (Ext. 2401)	South Georgia; Russel County, Ala.; and Aiken County, S.C.
HAWAII: (1) Honolulu, Federal Building, ZIP 96813	Entire State and western Pacific area
IDAHO: (1) Boise, Room 107, Federal Building, ZIP 83702, Phone (208) 342–2427	Entire State

State and City	Area Served
ILLINOIS: (1) Chicago, Room 1322, 219 South Dearborn Street, ZIP 60604, Phone (312) 353-5136	All of State (except Madison and St. Clair Counties) and Scott County, Iowa (see St. Louis, Mo., Board)
INDIANA: (1) Indianapolis, Room 102, 36 South Pennsylvania Street, ZIP 46204, Phone (317) 633-8662	All of State (except Clark; Dearborn; and Floyd Counties) and Henderson County, Ky. (see Louisville, Ky. Board and Dayton, Ohio, Board)
IOWA: (1) Des Moines, Old Federal Office Building, Fifth and Court Streets, ZIP 50309, Phone (515) 284-4547	All of State (except Scott and Pottawattamie Counties) (see Omaha, Nebr. Board) (see Chicago, Ill. Board)
KANSAS: (1) Wichita, Beacon Building, 114 South Main Street, ZIP 67202, Phone (316) 267-6106	All of State (except Johnson; Leavenworth; and Wyandotte Counties) (see Kansas City, Mo., Board)
KENTUCKY: (1) Louisville, Heyburn Building, 721 South 4th Street, ZIP 40202, Phone (502) 582-5130	All of State (except Boone, Boyd, Campbell, Christian, Henderson, and Kenton Counties) and Clark and Floyd Counties, Ind. (see Dayton, Ohio, Charleston, W. Va., and Memphis, Tenn., Boards)
LOUISIANA: (1) New Orleans, Federal Building South, 600 South Street, ZIP 70130, Phone (504) 527-2764	Entire State
MAINE: (1) Augusta, Federal Building, ZIP 04330, Phone (207) 622-6171 (Ext. 269)	Entire State
MARYLAND: (1) Baltimore, Federal Office Building, Lombard Street and Hopkins Place, ZIP 21201, Phone (301) 962-3822	All of State (except Montgomery; Prince Georges; and Charles Counties) (see Washington, D.C. Board)
MASSACHUSETTS: (1) Boston, Post Office and Courthouse Building, ZIP 02109, Phone (617) 223-2571	Boston Area (Counties of Essex; Norfolk; Middlesex; Plymouth; Suffolk and Worcester) (see Hartford, Conn.; and Providence, R.I. Board)
MICHIGAN: (1) Detroit, Lobby, First Floor, 144 West Lafayette Street, ZIP 48226, Phone (313) 226-6950	Entire State
MINNESOTA: (1) Minneapolis-St. Paul, Building 57, Fort Snelling, ZIP 55111, Phone (612) 334-2095	All of State (except Clay County) and Douglas County, Wis. (see Fargo, N. Dak. Board)
MISSISSIPPI: (1) Jackson, 802 North State Street, ZIP 39201, Phone (601) 948-7821 (Ext. 596)	Entire State
MISSOURI: (1) Kansas City, Federal Building, 601 East 12th Street, ZIP 64106, Phone (816) 374-5702	Western Missouri and Johnson; Leavenworth; and Wyandotte Counties, Kans.
(2) St. Louis, Federal Building, 1520 Market Street, ZIP 63103, Phone (314) 622-4285	Eastern Missouri and Madison and St. Clair Counties, Ill.
MONTANA: (1) Helena, IBM Building, 130 Neill Avenue, ZIP 59601, Phone (406) 442-3255	Entire State
NEBRASKA: (1) Omaha, U.S. Court and Post Office Building, 215 North 17th Street, ZIP 68102, Phone (402) 221-3673	Entire State and Pottawattamie Counties, Iowa
NEVADA: (1) Reno, 300 Booth Street, ZIP 89502, Phone (702) 784-5535	Entire State and Lassen County, Calif.
NEW HAMPSHIRE: (1) Portsmouth, Federal Building, U.S. Post Office, Daniel and Penhallow Streets, ZIP 03803, Phone (603) 436-7720 (Ext. 762)	Entire State (except Hanover and Lebanon, N.H., areas) (see Vermont Board)
NEW JERSEY: (1) Newark, Post Office Building, Federal Square, ZIP 07102, Phone (201) 645-3673	All of State (except Camden County) (see Philadelphia, Pa., Board)

State and City	Area Served
NEW MEXICO: (1) Albuquerque, Federal Building, 421 Gold Avenue SW., ZIP 87101, Phone (505) 247–0311 (Ext. 2557)	Entire State excluding Dona Ana and Otero Counties (see El Paso, Tex., Board), and including the Navajo-Hopi Indian Reservations of N. Mex. and Arizona (see Phoenix, Ariz., Board)
NEW YORK: (1) New York, News Building, 220 East 42d Street, ZIP 10017, Phone (212) 573–6101;	New York City; Long Island; Rockland, Westchester, Orange, Dutchess, and Putnam Counties.
(2) Syracuse, O'Donnell Building, 301 Erie Boulevard W., ZIP 13202, Phone (315) 473–5660	Northern New York State
NORTH CAROLINA: (1) Raleigh, 415 W. Hillsborough Street, ZIP 27603, Phone (919) 828–9031 (Ext. 534)	Entire State
NORTH DAKOTA: (1) Fargo, Room 206, Manchester Building, 112 University Drive, ZIP 58102, Phone (701) 237–5197	Entire State and Clay County, Minn.
OHIO: (1) Cleveland, 1909 East 13th Street, ZIP 44114, Phone (216) 522–4232;	Northern Ohio
(2) Dayton, Knott Building, 21 East Fourth Street, ZIP 45402, Phone (513) 461–4830 (Ext. 5540)	Southern Ohio (excluding Belmont; Jefferson and Lawrence Counties) and including Dearborn County, Ind.; and Boone; Campbell; and Kenton Counties, Ky. (see Charleston, W. Va., Board)
OKLAHOMA: (1) Oklahoma City, 210 Northwest Sixth Street, ZIP 73102, Phone (405) 232–9092	All of State (except Le Flore and Sequoyah Counties) (see Little Rock, Ark., Board)
OREGON: (1) Portland, 319 Southwest Pine Street, ZIP 97204, Phone (503) 226–3361 (Ext. 2403)	Entire State and Clark County, Wash.
PENNSYLVANIA: (1) Philadelphia, Federal Building, 128 North Broad Street, ZIP 19102, Phone (215) 597–7440	Eastern Pennsylvania and Camden County, N.J.
(2) Pittsburgh, Federal Building, 1000 Liberty Avenue, ZIP 15222, Phone (412) 644–2755	Central and Western Pennsylvania
RHODE ISLAND: (1) Providence Federal Building and Post Office, Kennedy Plaza, ZIP 02903, Phone (401) 528–4447	Entire State, and Barnstable, Bristol, Dukes and Nantucket Counties, Mass.
SOUTH CAROLINA: (1) Charleston, Federal Office Building, 334 Meeting Street, ZIP 29403, Phone (803) 577–4171 (Ext. 323)	All of State (except Aiken County) (see Macon, Ga., Board)
SOUTH DAKOTA: (1) Rapid City, Dusek Building, 919 Main Street, ZIP 57701, Phone (605) 348–1261	Entire State
TENNESSEE: (1) Memphis, Federal Office Building, 167 North Main Street, ZIP 38103, Phone (901) 534–3956	Entire State and Crittenden County, Ark.: Christian County, Ky.; and Walker County, Ga.
TEXAS: (1) Dallas, Room 103, 1114 Commerce Street, ZIP 75202, Phone (214) 749–3156;	Northern Texas, and Miller County, Ark.
(2) El Paso, El Paso National Bank Building, 411 North Stanton Street, ZIP 79901, Phone (915) 533–5388;	Western Texas, and Dona Ana and Otero Counties, N. Mex.
(3) Houston, 702 Caroline Street, ZIP 77002, Phone (713) 228–4674;	Southeastern Texas
(4) San Antonio, U.S. Post Office and Courthouse Building, 615 East Houston Street, ZIP 78205, Phone (512) 225–4343	Southern Texas

State and City	Area Served
UTAH: (1) Salt Lake City, Federal Building Annex, 135 South State Street, ZIP 84111, Phone (801) 524–5744	Entire State
VERMONT: (1) Burlington, Federal Building, Elmwood Avenue and Pearl Street, ZIP 05401, Phone (802) 862–6501 (Ext. 259)	Entire State and Hanover and Lebanon, N.H., areas.
VIRGINIA: (1) Norfolk, Rotunda Building, 415 Saint Paul Boulevard, ZIP 23510, Phone (703) 625–6515	All of State (except Arlington, Fairfax, Loudoun, Stafford, Prince William, and King George Counties) (see Washington, D.C., Board)
WASHINGTON: (1) Seattle, Federal Office Building, First and Madison Streets, ZIP 98104, Phone (206) 583–4365	All of State (except Clark County)
WEST VIRGINIA: (1) Charleston, Federal Building, 500 Quarrier Street, ZIP 25301, Phone (304) 343–6181 (Ext. 1226)	Entire State and Belmont, Jefferson, and Lawrence Counties, Ohio, and Boyd County, Ky.
WISCONSIN: (1) Milwaukee, 161 West Wisconsin Avenue, Room 215, ZIP 53203, Phone (414) 272–8600 (Ext. 3761)	All of State (except Douglas County) (see Minneapolis-St. Paul, Minn., Board)
WYOMING: (1) Cheyenne, 2005 Warren Avenue, ZIP 82001, Phone (307) 634–5920 (Ext. 2440)	Entire State
PUERTO RICO and the VIRGIN ISLANDS: (1) San Juan, Hato Rey Building, 255 Ponce de Leon Avenue, Hato Rey, P.R. ZIP 00917	All of Puerto Rico and Virgin Islands
WASHINGTON, D.C.: (1) Civil Service Commission Building, 1900 E Street, NW., ZIP 20415, Phone (202) 343–7341	District of Columbia; Charles, Montgomery and Prince Georges Counties, Md.; Arlington, Fairfax, Loudoun, Prince William, King George, and Stafford Counties, and cities of Alexandria, Fairfax, and Falls Church, Va. Also overseas areas except western Pacific Ocean area